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No. 37

AN ARCHÆOLOGICAL TOUR IN WAZIRISTĀN AND NORTHERN BALŪCHISTĀN

BY
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WITH AN APPENDIX BY
PROFESSOR STEN KONOW

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Note.—For the photographic reproduction of the antiquities shown in the Plates I am indebted to the Office of the Director General of Archæology, Simla, which carried it out in my absence on the lines indicated by means of 'key-plates'.

The scale shown at the bottom of each plate is approximate.

A. Stein.

LIST OF PLANS.

NOTE.—The drawings of the plans reproduced here were prepared by Naik Abdul Ghafūr Khān, K.G.O. Bengal Sappers and Miners, whose services kindly lent by that distinguished Corps for temporary employment on this and other archæological tours proved very efficient and helpful in connection with the survey of ancient sites and with other field work.

A. STEIN.

LIST OF ILLUSTRATIONS

Note.—The photographs reproduced in the illustrations are from negatives taken by myself. These were developed by Mr. A. T. Brendish, whose services were kindly lent by the Surveyor General of India from the Photo-Zincographic Office, Geodetic Survey, Dehra Dun. For this and much useful assistance besides rendered by Mr. Brendish in the course of my tour I wish to record my grateful appreciation.

A. Stein.

LIST OF ABBREVIATED "SITE-MARKS."

A. Gh.	Ark-gdundai, near Idak, N. Wazīristān.
A. Kh.	Aba-khēl Mound, near Tānk.
Bal.	Balēli Mound, Quetta.
Ch.	Chaudhwān Mound, near Drāband.
Ch. D.	Chīcha-dhērai, near Drāband.
D.	Dabra Mound, near Tānk.
D. (N. E., etc.) . . .	Dabar-kōt Mound, Thal.
I. K.	Iskān-Khān Mound, Pishīn.
K.	Kaudanī Mound, Zhōb.
K. G.	Kārēz-gai Mound, Hindubāgh.
K. K.	Kōt-kat Mound, near Tānk.
Kr.	Krānai Site, Surkhāb, Pishīn.
K. M.	Māta-Kaudanī Site, Zhōb.
K. S.	Kasiāno-ghundai, Quetta.
Ku.	Kuchnai-ghundai, Pishīn.
L. S.	*Spīna-ghundai, Lōralai.*
M. (iii. v. xxx., etc.). . .	Moghul-ghundai Cemetery, Zhōb.
M. J.	Majo Site, Surkhāb, Pishīn.
M. K.	Moghul-kala, Lōralai.
MM. (N. E., etc.) . . .	Moghul-ghundai Mound, Zhōb.
N.	Nimkai Mound, Thal.
P. (c, W, SW., etc.) . .	Periāno-ghundai, Zhōb.
P. A.	Pīr-Alizai Mound, Quetta.
R. G.	Rāna-ghundai, Lōralai.
Ri. G.	Riāsa-ghundai, Pishīn.
S. D.	Surkh-dhērai, near Drāband.
S. J.	Sūr-jangal Mound, Sanjāwi.
S. K.	Sara-kala Mound, Pishīn.
S. W.	Spīnwām Mound, N. Wazīristān.
Sang.	Sang hill, near Akhtar-Khān, Zhōb.
Sh.	Shahīdān Site, above Kurram-garhi.
Sh. Z.	*Shāh-zamānī Mound, near Tānk.*
Sp. H.	Spīna-ghundai Mound of Habībzai, Pishīn.
Sp. M.	Spīna-ghundai of Manzakai, Pishīn.
Sr.	Srē-sharghalai Mounds, Thal.
T. D.	Tōr-dhērai Stūpa, Thal.
T. G.	Tirkha-ghundai, Quetta.
U. Zh.	Uruske-zhāra Site, Zhōb.
Z. K.	Zarīf Khān's Mound, S. Wazīristān.

AN ARCHÆOLOGICAL TOUR IN WAZĪRISTĀN AND NORTHERN BALŪCHISTAN

INTRODUCTORY

THE interests of history, geography and archæology combined have drawn me for many years past towards those border regions which since ancient times have witnessed the interchange of the civilizations and ethnic elements of India and Īrān. Successive periods of official employment in the North-West Frontier Province and archæological expeditions undertaken beyond its administrative border had enabled me to gain such personal acquaintance with this fascinating ground as seemed essential for a proper study of its past, from the high valleys of the Hindukush right down to the Kurram river. But further south my opportunities had remained restricted to what glimpses rapid visits paid in 1904 to a few easily accessible points of Balūchistān had allowed me to gather.

The chance for prolonged work in this far-flung southern portion of the Indo-Iranian borderland was afforded by the important discoveries which in 1923-25 had rewarded the excavations carried out under Sir John Marshall's direction at the prehistoric sites of Mohenjo-daro and Harappa in the lower Indus region and those subsequently undertaken by Mr. Hargreaves in Kalāt territory. They had brought to light remains of a prehistoric civilization unmistakably pointing to links with that of a very early period traced in Mesopotamia and at sites of, or near, Īrān such as Susa, Anau and Sīstān.

Proposal of tour.—The special attention thus drawn to the area separating the lower Indus from the head of the Persian gulf induced me in May 1925, while on deputation in England, to propose an archæological reconnaissance of this region, as far as it lies within the limits of British India. It was to be undertaken by me as soon as I had completed my tasks on the results of my third Central-Asian expedition. The proposal received Sir John Marshall's generous support and on his recommendation was sanctioned by Government. The survey of an area so extensive could in any case not be carried out in less than two cold weather seasons, and as my expedition into Upper Swāt in the spring of 1926 necessarily delayed completion of my *Innermost Asia* until the close of the year, I decided to use the remaining cold

weather months for a tour within that well-defined portion of northern Balūchistān which lies between the Takht-i-Sulaimān range and the Afghān uplands of Ghazni and Kandahār.

My programme for the tour to be recorded in these pages was directly influenced by the fact that investigations carried out in 1898 by Dr. F. Noetling, late of the Indian Geological Survey, had clearly proved the existence of prehistoric remains at several points of the Zhōb, Lōralai and Quetta-Pishīn Districts.[1] A special reason for approaching this area from the north was supplied by the information which Mr. Evelyn Howell, C.S.I., C.I.E., Resident in Wazīristān, had previously communicated to Mr. Hargreaves, Superintendent of the Frontier Circle, regarding certain ancient mounds and other remains he had noticed both within Wazīristān and along its foothills on the Dēra Ismail Khān border, and which so far had remained unsurveyed. I was all the more anxious to follow up this information by an actual examination of those sites since the barren hill tracts held now by the Wazīrs and neighbouring Pathān tribes present a distinct historical interest to the student of India's north-western borderlands.

Interest of Wazīristān.—As far as the history of quite modern times is concerned, it will be enough here to refer to the long succession of inroads on the part of the turbulent Wazīr and Mahsūd tribes and to the arduous military operations necessitated for their repression. Ever since the extension of British rule to the trans-Indus border they have made the control of Wazīristān a particularly difficult task for those who have to keep watch and ward on the North-West Frontier of India. Notwithstanding the scantiness of historical records available for this semi-barbarous border tract, there is good reason to believe that conditions similar to those now prevailing in Wazīristān must have all through the past exposed the settled population in this part of the Indus Valley to particular dangers of attack and invasion by valiant, if far less civilized, tribes holding the arid hills above it. The very scantiness of cultivable land and the adverse physical conditions in general of a barren mountain land must at all times have forced those occupying it to lead a semi-nomadic existence and to look upon the fertile plain watered by the Indus as their natural raiding ground. It is safe to assume that long before Wazīristān and the belt of hills both to the north and south received their present Pathān occupants these tracts had witnessed the advance, whether slow or rapid, of earlier waves of tribes which first harried and in the end conquered the neighbouring riverine plains.

Rivers mentioned in Rigveda.—In the light of what modern conditions here show us it becomes possible for us to recognize the true significance of the oldest record that relates to this ground. I mean the mention of the river *Krumu* and *Gomatī* in a famous Vedic hymn, the 'Nadīstuti' of the Rigveda (x. 75). Their identity with the present Kurram and Gumal has been established ever since the study of India's oldest literary remains started in Eu-

[1] See his communications in the *Verhandlungen der Berliner Anthropologischen Gesellschaft*, 1898, pp. 460-71; 1899, pp. 100-11.

rope.[1] But it scarcely appears to have been adequately realized that the mention of these two rivers, both comparatively small except when sudden spates fill their beds, suggests such acquaintance with Wazīristān as only prolonged occupation by Aryan tribes of the early Vedic period is likely to account for. It is by the Kurram and Gumal that the whole drainage of Wazīristān and the Afghān uplands adjoining westwards finds its way to the Indus. There is all the more reason to attach a quasi-historical interest to their mention because acquaintance also with the hill tracts immediately to the south seems implied by the reference which another hymn of the Rigveda makes to the river *Yavyāvatī*[2]; for this, I believe, has been rightly identified by Professor Hillebrandt with the Gumal's main tributary, the Zhōb, the modern name of which can easily be accounted for as the direct phonetic derivative of the Vedic form[3]. There are other local features of a general character which were bound to invest that whole border with special quasi-antiquarian interest for me. But they will be more conveniently noted when recording such personal observations as my journey allowed me to make with regard to them.

Help of political authorities.—In view of the 'political' and other considerations which must necessarily prevail on such ground, my tour could not have been planned and carried out without the consent and support of the administrations responsible for the respective portions of the Frontier. Fortunately I was able to secure this to the fullest possible extent, and in addition I enjoyed also throughout most willing and effective help from all individual officers acting as local Wardens of the Marches. On the side of the North-West Frontier Province Mr. E. B. Howell, C.S.I., C.I.E., an old friend, from the first showed kindest interest in my plan, and when sometime before its execution he was succeeded as Resident in Wazīristān by Colonel C. E. Bruce, C.I.E., O.B.E., I was favoured by this distinguished Frontier Officer, too, with all possible consideration and aid. For the very helpful arrangements by which the Deputy Commissioners of the Frontier districts of Dēra Ismail Khān and Bannu and the Political Agents of North and South Wazīristān facilitated my visits to their respective portions of the border and my safe passage through tribal territory in Wazīristān, I shall have occasion further on to record my gratitude.

I was equally fortunate as regards that major part of my tour which lay in Balūchistān. There Colonel E. H. S. James, C.I.E., Revenue Commissioner, Balūchistān, accorded me the same generous and ever ready help by which I had benefitted so greatly both on my passage through Darēl and

[1] Cf. Macdonell-Keith, *Vedic Index*, i, pp. 199, 238; Roth, *Nirukta*, p. 43.

[2] See *RV.*, vi. 27. 6; Macdonell-Keith, *loc. cit.*, i., p. 188.

[3] Cf. Hillebrandt, *Vedische Mythologie*, iii. p. 268; also 'Zur vedischen Mythologie und Völkerbewegung' *Zeitschrift für Indologie und Iranistik*, p. 16.

The change of initial $y > j$ and the subsequent one of $j > zh$ is well known in Iranian dialects the use of which in the present Balūchistān is well attested from an early period; *cf.* Gray, *Indo-Iranian Phonology*, pp. 70, 109. In the southern dialect of Pashtu the pronunciation of initial *j* as *zh* is quite common.

The change of *-avyā-* into *ō* can also be accounted for by the frequent assimilation of $vy > v$ and by the weakening process which reduces medial *v* to *u*, resulting in the subsequent normal contraction of $ava > \bar{o}$; see Gray, *loc. cit.*, pp. 126, 210.

the adjacent Hindukush territories in 1913 and during my expedition of 1926 into Upper Swāt and on my search for Aornos. To Colonel C. T. Daukes, C.I.E., Political Agent, Lōralai, and Khān Bahādur Sharbat Khān, C.I.E., Political Agent, Zhōb, in whose agencies most of my archæological spade work was done, I owe sincere gratitude for all the facilities they secured to me as regards local guidance, labour and transport, and for much kind hospitality besides. Nor should I omit to mention my obligations to Major G. T. Dennys, the Commandant and the Officers of the Zhob Levy Corps, who by providing needfull escorts and transport did everything to render my movements safe and easy. In the Quetta-Pishīn District where my tour was concluded, I received equally valuable assistance from Colonel J. A. Brett, C.I.E., Political Agent, and Khān Sāhib Nūr Ahmad Khān, in charge of the Pishīn Sub-Division.

Limitations of programme.—Before I proceed to record the archæological results of my tour in the topographical order which it followed, a few preliminary remarks on the character of my labours and on the scope of the present report may be useful. The great extent of the area which it was proposed to examine—stretching from north-east to south-west for over 300 miles in a straight line—and the limitation of the time available made it clear from the start that the object to be kept in view could be only a general survey of the ancient remains traceable and not their complete exploration. Such a survey would necessarily aim at determining the general character, and if possible the approximate epoch, of each site examined. But excavations undertaken for this purpose at special sites were to be confined to the measure needed to secure reliable data for settling essential points; no attempt could be made at complete clearing.

I must plead a similar limitation also for the scope of the record here presented. I shall endeavour to give exact details regarding each surveyed site as observed and noted at the time, and by description and illustrations adequately to indicate the general character of the archæological materials recovered from each locality. But as regards remains of prehistoric civilization which form by far the greatest portion of these materials, neither the time available for the preparation of this report nor the range of my competence will permit any systematic analysis being offered here. Protracted observation in the field has indeed led me to form certain quasi-empirical conclusions as to the sequence of the different styles among the decorated ceramic wares which are abundantly represented among those materials and, perhaps, are more likely than the rest to afford chronological guidance.

Comparison of prehistoric materials.—But I am fully aware that for the correct interpretation of such criteria in the case of materials not controlled by datable finds comparison with similar relics from kindred archæological fields is essential. I cannot claim familiarity with the latter, except in the case of the prehistoric sites which wind-erosion has laid bare in the desert delta of Sīstān.[1] There the remains of painted pottery dating from chalcolithic

[1] For an account of these sites and their ceramic remains, cf. *Innermost Asia*, ii, pp. 949-972.

times show indeed a very striking resemblance to our corresponding relics from early Balūchistān mounds. The abundant materials of probably similar types which the excavations at Mohenjo-daro, Harappa and Nāl have yielded are not accessible to me at the time of writing. Nor can I find leisure at present for a proper study of the materials, also corresponding in character, brought to light by the Pumpelly expedition in Transcaspia, by Dr. Anderson's important explorations in Central and Western China and by excavations in Mesopotamia. I shall have hence to leave the systematic classification and comparison of the ceramic finds from my recent tour to other and better qualified students.

CHAPTER I.—REMAINS OF THE WAZĪRISTĀN BORDER

SECTION i.—OLD MOUNDS ALONG THE DRĀBAND-TĀNK LINE

Start from Dēra Ismail Khān.—On the morning of January 11th, 1927, I arrived at Dēra Ismail Khān which, as the headquarters of the District bearing the same name and of the political and military authorities controlling the Wazīristān border, provided a convenient starting point for my tour. The arrangements kindly made by Mr. C. H. Gidney, I.C.S., the Deputy Commissioner of the District, enabled me, in accordance with the programme previously approved by Colonel C. E. Bruce, to reach on the following morning Drāband, an important post of the Frontier Constabulary situated near the mouths of several valleys which descend from the northernmost and highest portion of the Takht-i-Sulaimān range towards the Indus plain. On the 33 miles' motor drive to Drāband it was of interest to note how quickly the narrow belt of permanent cultivation irrigated from the Indus gave way to the bare tamarisk-studded plain of clay, known as *Dāmān* and very scantily populated, which forms by far the greatest portion of the district. It can be made to bear crops only in places and in years of particularly good rainfall. The desert look of the ground changed only when passing into the narrow belt of Drāband cultivation, a true 'terminal oasis,' fed by canals from the small stream passing Drazinda. The conditions here determining permanent occupation are typical of all the other small oases scattered along the glacis of the hills of Wazīristān and of the Sheranni country further south. That these conditions could not have materially changed since prehistoric times is made very probable by what the examination of ruined mounds in the vicinity of Drāband and further north showed me.

Surkh-ḍhērai near Drāband.—Mr. A. F. Perrot, District Officer in command of the Frontier Constabulary on this border, who had first brought the mounds near Drāband to my notice, had been obliged to take leave. But Mr. W. O. F. Hodder, his Assistant, kindly enabled me by his very efficient

help to visit between January 12th and 14th these old sites as well as a series of others echeloned along the foot of the hills from Chaudhwān to Tānk, a distance of some 45 miles in a direct line from south to north. The first I examined was reached after proceeding from Drāband about 3½ miles westwards by the road to Drazinda and then crossing about half a mile to the north a rubble-strewn dry bed of the Drāband stream, also known as Lohra. The mound rising close beyond this forms a very conspicuous object from afar. Owing to the brownish-red colour of its surface it appropriately bears the name *Surkh-ḍhērai*. Its length from NE. to SW. is about 800 yards, its width, where greatest, over 300 yards, as shown by the sketch plan (Pl. 1). The width of the mound must have been at one time far greater; for on its north-western face where it rises to a maximum height of about a hundred feet, it falls off with almost vertical walls to what obviously was once a main flood bed of the stream, now quite dry and largely covered with scrub (Fig. 2).

Debris layers of mound.—The steep cutting here made by flood water shows quite clearly that the whole of the mound is of artificial origin and consists entirely of the accumulated debris from dwellings built mainly with earth and rough stone work. In the strata disclosed on this side of the mound remains of rubble-built walls as well as single courses of large uncut stones could be made out at varying levels. They are likely to have served as wall foundations or floorings. Broken pottery and animal bones, too, plentifully embedded in this debris pointed with equal clearness to prolonged occupation. That this occupation was probably more or less continuous was suggested by the fact that the potsherds we were able to extract at varying heights and points of this cutting showed no appreciable difference of type.

Abundance of potsherds.—This conclusion was fully confirmed by the examination of the abundance of potsherds which cover the surface of the mound where erosion caused by rain water, possibly to some extent aided also by deflation, has reduced its sides to fairly steep slopes or cut them up into narrow ravines, as the sketch plan (Pl. 1) shows. The work of erosion *cum* deflation was, no doubt, facilitated by the great aridity of climatic conditions.[1] This allows of no plant growth anywhere on the slopes of this and similar debris mounds within the area over which my tour extended and has thus deprived their surface of the protection which a cover of vegetation might have afforded. Yet the comparative thickness of the surface layer of broken pottery found everywhere on these slopes affords direct proof of the great length of time during which gradual erosion must have been at work on the mound since its occupation had ceased. Incidentally it also accounts for the reddish colour of its surface to which the name *Surkh-ḍhērai*, the 'red mound,' is due.

Chronological guidance of pottery.—At sites like the mound of Surkh-ḍhērai and others of the same type to be presently mentioned where my survey

[1] The average rainfall per annum is less than 8 inches in the Dāmān tract; *cf.* Gazetteer of Dēra Ismail Khān District, 1884, p. iii.

had to be restricted to the examination of relics on the surface, it is mainly from the general character of the pottery debris that we may hope for some guidance as to the approximate period of occupation. Such guidance is likely to be afforded by a comparison of decorated pieces with similar materials from other localities in this region where indicia supplied by excavations or otherwise may help towards a relative chronological determination. It is obvious that where the period of occupation must have been so protracted as the great height of the accumulated debris proves, the evidence of remains exposed on the surface can be used only with caution. But at the same time some assurance may be derived in those cases where the abundance of decorated ceramic relics is so great and their distribution over the whole site so uniform as observed at Surkh-ḍhērai and some of the neighbouring mounds.

For the reasons already indicated in my introductory remarks I cannot attempt any systematic analysis of the pottery remains collected at Surkh-ḍhērai or at the other ruined sites surveyed. This applies in particular to the technical character and treatment of the material used and to the shapes of the wares to which the fragments recovered are likely to have belonged. I must be content here and elsewhere to indicate the chief characteristics common to all the pieces examined and mark briefly the prevalent methods of decoration and designs as illustrated by the specimens reproduced in Plate I. As all the specimens collected in the course of my tour are deposited at the Office of the Director General of Archæology their further examination on the part of competent students will not be attended by difficulties.

Character of pottery from Surkh-ḍhērai.—The material of all specimens from Surkh-ḍhērai is a fine well-levigated clay easily obtained locally from the alluvial deposit of the streams debouching at the head of the 'Dāmān.' There can be little doubt that most if not all of the pottery is wheel-made. It is throughout burnt hard and uniformly shows a light pinkish-buff body. All the pieces seen by me are unglazed. The decorated fragments are painted, incised or ornamented in relief. In some cases painting is combined with incised or raised ornament (*see e.g.*, S.D. 1, 14, 27-29, 33, 42, Pl. I).

Designs of painted pottery.—The painted patterns are executed almost throughout in black over a red slip of different shades. But in a few cases designs in purplish-brown or black are applied over the unpainted pinkish-buff body (S.D. 36, 39). The designs are mostly geometrical and comprise simple straight lines, as for encircling rings over lip or neck (S.D. 4, 41); fairly wide hachures (S.D. 30, 34, 37); lattice work (S.D. 43); chevrons (S.D. 40, 42); rows of triangles (S.D. 35); chains (S.D. 31). Among more freely drawn motifs we find scrolls of different kinds (S.D. 36, 38, 42-3); leaves of various shapes (S.D. 29, 39), in one case combined with fine hachuring within (S.D. 31). Only in one fragment, S.D. 32, have I met with what seems an animal form, representing a duck-like bird with head and long neck thrown back and feathers rising below the latter.

Incised ornamentation.—The incised ornaments, executed with a pointed tool or stamped, comprise simple festoons (S.D.18); multiple horizontal bands

of a tradition that a large find of coins had once been made on the mound. Subsequent searches which this report had encouraged were said to have remained fruitless. This was certainly the case with the enquiries for old coins which were made on my behalf in the small Bāzārs of Chaudhwān and Drāband.

Chīcha-ḍhērai mound.—The use of Mr. Hodder's motor car enabled me on the same day to examine also the mound known as *Chīcha-ḍhērai*. It was reached by proceeding for 6½ miles to the north-west of Drāband along the excellent 'Frontier Road' which leads along the foot of the hills towards Tānk, and then riding for about 2½ miles to the west across the waste furrowed by the stony torrent beds of the Shaikh Haidar stream. The mound is marked in the Survey Sheet No. 39. I. 5 with the height of 874 feet and rises about 25 feet above the neighbouring scrub-covered ground. It is comparatively small, measuring about 150 by 110 yards. Among the broken pieces of pottery which thickly cover it there were numerous fragments painted in black on red ground. Like the specimens, Ch.D.8-18, reproduced in Pl. II, these showed often carefully executed geometrical patterns or bold leaf ornaments reminiscent of motifs subsequently found on pottery from chalcolithic sites. Among the unpainted fragments there were handles of vessels, like Ch.D.2, 3, the spout Ch.D.5 and the round lid Ch.D.6 (Pl. II), suggestive of later origin. The broken terracotta figurine Ch.D.1 shows the well modelled head and torso of a humped bull. The hair on head and hump is indicated by punched dots after the fashion of figurines of animals familiar from Khotan sites. Plentiful human bones exposed near the north-eastern end of the mound indicate a burial place.

Position of mounds near Drāband.—The Chīcha-ḍhērai mound lies close to the mouth of the valley in which the Zao stream descends from the Takht-i-Sulaimān range. A canal taking off from it carries water to the constabulary post and small village of Zarkani. The position thus closely corresponds to that in which the old sites of Drāband (Surkh-ḍhērai) and Chauḍhwān are found. All three may be taken to mark the main settlements in small 'terminal oases,' occupied during approximately the same period. Considering how close all three places lie to the hills and how exposed in consequence to predatory incursions, it seems difficult to resist the conclusion that their prolonged occupation points to a period during which this portion of the trans-Indus territory was controlled by a power strong enough to assure protection from the troublesome semi-nomadic neighbours westwards.

Move past Powinda camps.—On January 14th my rapid survey was continued towards Tānk. Newly made connecting links of the strategic 'Frontier Road' made it possible to cover the distance of 44 miles to that town on the same day. No mounds were reported or sighted along that line of the administrative border which runs near the foot of the outer hills past the Constabulary posts of Zarkani, Lūni and Mānjhi. This absence of old sites is accounted for by the fact that no stream debouches from the hills between these posts. Bare as this glacis-like stretch of the 'Dāmān' looks it yet affords adequate

grazing for the camels and sheep of those nomadic Powinda tribes of Ghilzai stock who annually move down in their thousands for the winter months from the snow-covered Afghān uplands to the plain of the Dēra Ismail and Dēra Ghāzī Khān Districts. The large camps (*kirri*) of Sulaimān Khēl Powindas which we passed on the way to the Gumal river afforded interesting glimpses of these hardy nomads and their ways. Their regular annual moves up and down by the Gumal and other routes through the hills represent a seasonal migration which probably reaches far back in the ages and would well deserve special study for the sake of its historical interest. The Powindas' visits as graziers, caravan traders and carriers are peaceful enough—after their arms have been deposited on crossing the British administrative border. But their passage through the hills of the Wazīr and neighbouring Pathān clans has often to be bought at the cost of serious fighting. Close examination of the 'staff arrangements' and tactical methods by which the Powindas safeguard their marches through these difficult hills might be distinctly instructive for the student of similar nomadic organizations in the past.

Mounds near Kōṭ-āzam.—After crossing the southern main bed of the Gumal near the Lūni post we first reached ground irrigated from this river at the village of Kōṭ-āzam. Of two small mounds to which I was taken about 1½ miles to the NNW. of the village one rose to a height of about 10 feet; the other was even lower. Potsherds lay plentifully on both but few showed any painting and all looked coarse and of late date. Between them and the road it was curious to note small eroded trenches corresponding to regular 'Yārdangs' and here known as *kand*.

Mound near Dabra.—Passing some two and a half miles further north we reached the broad military road leading from Tānk to the mouth of the Gumal. Before the great rising of 1919 it gave access to the picketed route which passed up the defiles of the river and served for communication with the advanced position at Wāna intended to control Southern Waziristān. We had proceeded by this fine highway recalling Roman roads for about four miles from where it crosses the wide torrent bed of the Kaur when I noticed a conspicuous mound rising beyond marshy ground to the east. It proved to be about a mile distant from the road and to rise to a maximum height of about 20 feet, with a length of circ. 90 yards on its top. From the nearest village on the road it may conveniently be designated as the Dabra mound. Among the abundant potsherds which cover it painted pieces were comparatively rare. But these, as seen from the specimens, D.1, 4 (Pl. III), show distinct affinity to the painted ware of Surkh-ḍhērai and Chauḍhwān, and the same may be held of the incised or stamped pieces, illustrated by the specimens, D. 2, 3, 5-9. Among them there is a well-modelled handle, D.10. On returning towards the road we came after crossing the military railway line from Tānk upon a low swelling of the ground where potsherds lay scattered in plenty. Among them we picked up pieces of a different type, like D.12 (Pl. III), with large geometrical patterns painted in dark brown over light yellow or grey ground. Here, too, was found the head, D. 11, coarsely modelled

and painted, of a small human figure in terracotta. Apparently most of this mound had been carried off when building the railway embankment. Having regained the road and proceeded a mile further I was shown a small mound known as *Sra-ghundai*, quite close by its side. All potsherds found on it looked of poor make and late.

Shāh-Zamānī-ḍhērai near Tānk.—Finally having been met *en route* by K. S. Safdar Khān, Offg. Assistant Commissioner of Tānk, I visited the large mound known from a neighbouring village as Shāh-Zamānī-ḍhērai and situated close on 3 miles to the south-west of Tānk town. It rises to over 70 feet in height and extends for about 310 yards from east to west, with a width of circ. 160 yards. It forms a very conspicuous feature on the edge of the Tānk oasis. Far advanced erosion has cut up the mound into a series of steep and narrow ridges running down into a small horseshoe-shaped depression which a lower mound bounds on the south-west. All the slopes are thickly covered with potsherds among which pieces painted with bold patterns in black over red, as shown by the specimens Sh.Z.1-7 (Pl. III), could be picked up in plenty. A brief search produced also fragments of bone bangles, like Sh.Z.9; small beads of bone and paste as well as small pieces of worked alabaster and copper. In view of these finds and the much-eroded condition of the mound it appears to me probable that the lowest of its debris deposits may go back to a comparatively early age.

Halt at Tānk town.—A busy day's halt at Tānk made it possible for me to attend with the willing help of the Assistant Political Agent, Southern Wazīristān, Ghulām Nakhshband Khān Bangash, to the detailed arrangements which were needed to assure my safe passage through Wazīr tribal territory beyond Fort Sarwekai, and in addition to visit old mounds reported in the vicinity. The small town of Tānk is situated within a fertile oasis abundantly irrigated from the Tānk-Zām river. Owing to its position near the mouths of the two main valleys of Southern Wazīristān it is likely all through historical times just as now to have formed a local trade emporium for the hill tracts to the west. The same position accounts also for its having been a favourite objective for Wazīr raids. These on more than one occasion, even since the British annexion, resulted in the sacking and burning of the town.

Remains of Lakhī-kōṭ.—The site now occupied by Tānk is avowedly not a very old one, and local tradition points to Lakhī-kōṭ, about a mile to the west, as its former position. There a mound measuring about 360 by 150 yards rises to a height of 10-12 feet above the cultivated ground around. Plenty of pottery debris is embedded here in loose earth. But erosion has not yet proceeded sufficiently far since the site was abandoned to cause it to form a distinct crust on the surface as at the old mounds previously described. Pieces of glazed stoneware and also of porcelain clearly proved the site to have been occupied down to mediæval times if not later. Among the pieces of coarse pottery examined many showed broad bands of black or buff on the otherwise unpainted surface, while ornamentation of the type common among the wares previously described was conspicuously absent. In this respect the

examination of Lakhī-kōṭ offered some chronological interest. Finds of coins, apparently Muhammadan, as well as of 'treasure' were reported, the latter being held to account for the name *Lakhī-kōṭ*, 'the fort of Lakh owners (Seths).'

Mounds of Aba-khēl and Kōṭ-Pathān.—Another mound, known as Aba-khēl from an adjacent village and situated about three-quarters of a mile to the north-east of the Tānk railway station, proved undoubtedly old. It is about 30 feet high and of conical shape, measuring about 25 yards across on its flat top. Both the painted potsherds, with patterns in black on red ground (*see* the specimens A.Kh.5-7, Pl. III) and the incised or stamped pieces (A.Kh.1-3, 8) are of superior clay and show patterns such as are met with at the mounds of Drāband and Chauḍhwān. Here the fragment of an iron spear head or missile was also picked up. A second old mound pointed out close to the village of Kōṭ-Pathān, about 2 miles to the north-east of the railway station, was too closely covered with stone-marked Muhammadan graves to permit of a proper search. A coral bead picked up here may well be recent.

Pottery of Kōṭ-kat-ḍhērai.—But a ride of another 4 miles in the same direction past the village of Shāh Ālam, over ground partly cultivated and partly waste, cut up by flood beds, brought us to another large mound undoubtedly marking an early settlement. It takes its name *Kōṭ-kat-ḍhērai* from a village some distance off to the east. It rises to a height of about 40 feet and extends for circ. 300 yards from NE. to SW. Erosion has far advanced here and furrowed the mound into steep ravines. Potsherds lay here thick on all slopes, and among the painted or otherwise decorated fragments (*see* the specimens K.K.1-9, Pl. III) ornamental designs of the same type as previously described in the case of the mounds of Drāband, etc., were frequent. The terracotta fragment, K.K.10, is curious, representing perhaps the lower part of a dressed figure. In addition we collected here in the course of a rapid search pieces of ornamented bone bangles (K.K.11-13, Pl. III) besides a number of small beads in stone and bone.

SECTION ii.—SITES IN NORTH WAZĪRISTĀN AND A MODERN LIMES.

Start for Wazīristān.—Kōṭ-kat was the last old site in the vicinity of Tānk of which I could learn. Telegraphic communications of the Assistant Political Officer exchanged with Colonel Bruce and the Commandant of the South Wazīristān Scouts assured me on my return to Tānk tha arrangement allowing me to pass through tribal territory to the Zhōb border on the Gumal were practicable by the route I intended to follow. So I was able on the morning of January 16th to set out for my short tour in Northern Wazīristān. It was to take me to certain ruined sites to which Mr. Howell had called attention. Incidentally it was also to let me see something of the great system of strategic roads, a true *Limes*, which since the arduous campaign of 1919 against the revolted Wazīr and Mahsūd tribes had been constructed to assure the progressive pacification of this troublesome frontier region.

For this purpose it was necessary for me to cross northward into the Bannū District and to enter the Tōchī river valley from the side of the town of Bannū. Considerations of time obliged me much to my regret to do the journey from Tānk to Mīrānshāh, the headquarters of the Political Agent and of the North Wazīristān Scouts, a total distance of 116 miles, by car in a single day. I should have had even more reason to regret the rapidity of the passage which took me by the new 'Frontier Road' through the gorges of the Bhittanni hill range at Bain into the open plain of the lowermost Kurram valley, had I not already in the years 1904 and 1905 had occasion to visit the Bannū District and to examine the interesting ancient site of Akra, marking its ancient capital. Here I must be content to refer to section ii of the report on my archæological tours of those years. There I have discussed the ancient geography of the whole Kurram region and the descriptions left by the Chinese pilgrims of the fertile and always important district of Bannū (Fa-hsien's *Po-na*, Hsüan-tsang's *Fa-la-na*).[1]

Past Bannū to Khajūrī.—From the town and cantonment of Bannū which by its natural position is destined to become the true base of the 'Wazīristān Limes', the journey lay along the magnificent motor road which, protected by military camps and 'Khassādār' watch-posts (Fig. 1), leads across the barren alluvial fan of the Bārān torrent and then up the valley of the Tōchī. Where the road first reaches fairly open ground on the right bank of the river, at the lower end of the fertile valley tract known as Daur, there lies the fort of Khajūrī held by North Wazīristān Scouts. About a quarter of a mile to the south of it there rises a small mound, about 50 yards in diameter and 20 feet high. I did not visit it until my second passage up this portion of the road, having first heard of it during my halt at Mīrānshāh as a place from which coins had been obtained by Captain Robinson of the N. Wazīristān Scouts. Plentiful potsherds covering the mound proved that it marked a place of prolonged occupation. But among them I could find no fragments of painted or otherwise decorated pottery of the type so common at the Drāband or Tānk 'mounds'; even pieces showing plain black stripes were rare. This indication of a late date for the mound was supported by local information which pointed to the reported coin finds having been of Muhammadan issues.

Population of Daur on lower Tōchī.—It was interesting to note small towers scattered in the fields of the neighbouring villages. They used to serve as temporary places of refuge for the Daurī cultivators when surprised by raids of their Wazīr neighbours from the hills. Prolonged occupation of the fertile and well irrigated portion of the Tōchī valley is supposed to account for the degenerate and morally weak character attributed to the Daurīs, though they are a physically strong Pashtu-speaking people. The same belief prevails as regards the Bannōchī population of Bannū in which, however, a considerable admixture of older non-Pathān ethnic elements may reasonably be assumed.

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[1] See Stein, *Archæological Survey Work, N. W. Frontier Province and Baluchistan*, 1905, pp. 4-10.

Ruined site of Ark-ghundai.—At a point about 27 miles from Bannū and about 6 miles beyond Khajūrī the motor road approaches close to the river where it bends round the foot of a small but conspicuous rocky hillock on the right bank. This isolated eminence is situated a little over a mile to the south-east of the fortified camp near the village of Īdak and commands the route along the valley bottom; it is known as *Ark-ghundai*, 'the hillock of the citadel'. The hillock rising about 120 feet above the fields by the river (*see* the sketch plan, Pl. 1) is thickly covered on its top and slopes with masses of rough stones which once belonged to the walls of dwellings and towers. As the name *Ark-ghundai* shows, these remains are locally attributed to the stronghold of some old ruler, and perhaps rightly. Steep cliffs are exposed along the northern slope of the hillock and also near the foot of its southern end. Elsewhere they are likely to be hidden by the accumulation of debris. As safe access to water is assured and a stretch of flat ground, now under cultivation, intervenes between Ark-ghundai and some smaller rocky knolls to the south-east the position presents great natural advantages for defence.

Remains of ruined Stūpa.—That the site was occupied during pre-Muhammadan times is proved by the remains of a massive enclosing wall near what probably was a Stūpa, traceable near the south-western foot of the hillock. There a massive wall of large dressed stones, measuring up to 4′ 4″ by 2′ and 1 foot thick, rises to a height of about 5 feet above the debris. This wall (Fig. 3) is exposed for a length of 51 feet and shows a thickness of 6 feet. At its northern end it turns at right angles up the slope but can be traced in that direction only for a few yards. Within the angle thus formed there rises a solid circular mass of rough stone masonry to a height of about 9 feet above the extant top of the above mentioned wall. All round it runs a trench showing where an outer masonry facing, probably of dressed stones, has been removed in recent years, evidently to supply building material. The diameter of the circular structure measured between the outer edges of this trench appears to have been about 16 feet. Judging from the shape and solidity of the surviving masonry, I believe, it may safely be taken to mark the remains of a small Stūpa. The massive stretch of wall passing by the side of it may possibly have served as the supporting wall for a terrace intended to provide level space. But excavation would be needed to prove this. It remains to be mentioned that roughly in continuation of the line followed by this wall there is exposed along the foot of the ridge of the south a stretch of natural rock wall, about 40 yards long which looks as if cut by the hand of man. It may, perhaps, have been intended to serve a defensive purpose.

Site occupied in Buddhist times.—The dating of the occupation of the site from Buddhist times is confirmed by a copper coin of Kaniṣka, showing the running wind god ΟΑΔΟ on the reverse. It was brought to me by a cultivator of the closely adjacent village of Zerakki as having been found on the hillock. Other Kushān coins are known to have been collected there. From the same villager was acquired a Muhammadan copper coin which has not yet been determined. In view of the above chronological indication some

interest may attach to the pottery remains found on the hillock. Most of it consists of coarse thick ware painted red on the surface. What little of decorated pieces could be found ordinarily showed broad black or dark brown bands painted on the inside or on the rim. Only on two fragments did I notice crudely executed geometrical patterns. One small fragment of superior make shows a glazed surface on the inside with part of a scroll executed in bluish-green. This piece probably belongs to the Muhammadan period when the fortified hillock is likely to have served more than once as a temporary place of refuge.

From Mīrānshāh to Spīnwām.—Passing through the large defensible camp of Īdak, occupied by an Indian battalion with plenty of mechanical transport, I reached the same evening the fort of Mīrānshāh, the headquarters of the Political Agent and of the North Wazīristān Scouts. The kind reception accorded by the former, Captain C. G. N. Edwards, and by Major C. E. T. Erskine, Commanding the Scouts, enabled me to start early on the following morning in the company of the latter distinguished Frontier Officer for the fort of Spīnwām situated to the north-east in the Kaitu valley. Near this Mr. Howell had indicated the presence of an ancient mound. Major Erskine's car having carried us down the road as far as the Mīr Alī post, some miles obove Īdak, we picked up our escort of Scouts and then marched, mostly on foot, across bare hills to the wide Sheratala plateau traversed by dry torrent beds which drain into the Bārān river. It was a typical Wazīristān landscape of barren hillsides with potentially fertile stretches of plain left uncultivated owing to the Wazīrs' nomadic aversion to regular agricultural labour. Such temporary habitations as we passed were untenanted, their owners having moved with their flocks down to the lower valleys to escape the tryingly cold and bitter winds of the season.

Inscribed boulder near Dre-ḍhērē.—The road we followed forms part of an important line of communication connecting the Tōchī valley with Thal where the railway running up from the Indus past Kohāt meets the open higher valley of the Kurram. But of traffic along it we saw none. From the small post guarded by local Wazīr 'Khassadārs' and appropriately known as '*Nīm-lāre*' ('half-way') we were guided across the stony plain to a point about 1¼ miles to the north-west. There at the foot of small rocky hillocks, called *Dre-ḍhērē* and marked on the half-inch map with the height of 2,138 feet, an inscribed stone was reported. It proved a large block of stone about 4 feet high standing isolated and hence easily noticed on this bare ground. It bears on one side four lines of shallow graffiti from 2″ to 4″ high which looked like Kharoṣṭhī characters. Curiously enough these lines, each containing from two to five 'characters', run at right angles to the base of the stone as at present placed. In order to make sure of some photographic record I was obliged to rub the shallow outlines with a piece of whitish stone picked up from the ground. An examination of the photograph thus taken certainly supports the belief that the graffito is in Kharoṣṭhī script of the Kushān period. It would scarcely be safe to attempt a definite decipherment without a proper

cast or ink impression for the taking of which neither time nor materials were available. The conjecture may, however, be hazarded that the top line contains on the left the figure 30 preceded by the imperfectly spelt word *samvat*, 'year'. That the stone was likely to offer itself for the passing record of a wayfarer is shown by the letters *L P* which some British soldier marching by this route has roughly scratched below.

Mound near Spīnwām fort.—After crossing the watershed in a narrow rocky glen we reached the valley, here fairly open, of the Kaitu river. On the opposite bank we arrived at Spīnwām fort. It is built on a terrace rising steeply above the river and commands the route to the Kurram. About a mile to the north-west of the fort there rises a conspicuous mound of roughly circular shape to a height of about 40 feet above the strip of cultivated ground by the left bank of the river. Its top is occupied by some dwellings within an enclosure of rough stonework which could not be entered. An examination of the slopes soon showed that the mound which measures about 70 yards in diameter at its foot, is of artificial origin and like the 'dherais' visited near Drāband and Tānk is composed of the accumulated debris from dwellings built with mud walls or rubble. Owing, perhaps, to the prevalence of the latter material no erosion Nullahs had formed on the slopes. Hence most of the pottery exposed on the surface consisted only of coarse red ware, plain or showing black bands. But in the course of a careful search we picked up lower down also fragments of superior ware decorated with geometrical patterns in black over red or buff ground and bearing a distinctly early appearance (for specimens, *see* Pl. IV). The same is true of the fragment, S. W. 9, of a bone bangle with incised geometrical design. The few Muhammadan copper coins which were shown to me as having been found here only indicate that the mound continued to be occupied by dwellings in comparatively recent times just as it still is at present. A small bronze figure of a bird, acquired by Major Erskine from this spot, curiously recalled a similar object purchased by me at Keriya.[1] It had probably like the latter served as a finial for a small spoon to apply antimony with or for an ear-pick.

March from Spīnwām to Kurram valley mouth.—In the spring of 1912 shortly before my departure to Kashmīr to prepare for my third Central-Asian expedition I had learned of ancient remains situated on the hills immediately overlooking the Kurram river where it debouches into the open plain of Bannū. I had then been unable to follow up this report. But having now by my visit to Spīnwām been brought comparatively near to this north-eastern corner of Wazīr territory I was glad to avail myself of the chance for a rapid inspection of the site. Major L. E. Barton, Deputy Commissioner, Bannu, had very kindly agreed to make the necessary 'tribal arrangements' for guidance, etc., to the locality just beyond the administrative border of his District. So on the morning of January 18th I was able to start from Spīnwām fort down the Kaitu river with an escort of local Wazīrs. The route

[1] See *Ancient Khotan*, ii. Pl. LI, Ker. 001. For two small figures of a similar type brought from a Sīstān site and probably also mediaeval, cf. *Innermost Asia*, iii. Pl. CXVI, Sar. 02, 04.

proved distinctly difficult from the point where the river enters into narrow and practically impassable defiles on its way to the Kurram. What with the delay caused by the need of securing a second camel for the transport of our modest amount of baggage and by the troublesome passage of the Bōbar gorge the watershed on the Ghasiāra-narai pass was gained only after five hours' march. Beyond it the descent over a steep and narrow crest led into a perfect maze of narrow ravines eroded from the shale and curiously recalling the ground I remembered from the Tokuz-dawān gorges above Kāshgar. Fortunately the sure-footed local camels negotiated the descent without mishap. But it was not until after 4 P.M. that we emerged from those gorges and a succession of rocky ridges into the narrow valley of the Kurram near the Khassadār post of Shahīdān.

Ruined site above Shahīdān.—Considering that the Bannū cantonment some 8 miles distant had to be gained the same evening our survey of the sites to which I was taken by the guides whom the Malik of the Muhammad Khēl Wazīrs had provided was bound to be very rapid. All the same it proved of distinct interest. About half a mile to the north of the Khassadār post, known as Shahīdān from a large Muhammadan burial ground, there stretches a low plateau along the right bank of the wide flood bed of the river, as shown in the sketch plan, Pl. 1. Its approximate length from north to south is about 550 yards and its width circ. 220 yards at its northern end where a torrent bed bounds it. The whole of this area which rises about 15 feet above the sand and shingle of the river bed, is covered with the debris of completely decayed dwellings. This consists of rough stones once, no doubt, set in walls of mud and rubble. The site is known as *kāṇe-wōr* ("fire of stones"). The name is explained by a legend which tells of the residence of a certain wicked king having been destroyed here by a fire from heaven and an accompanying rain of stones in punishment for a particularly sinful act. Among the plentiful potsherds those decorated with painted, incised or relief patterns are mostly of types represented also at the sites near Drāband and Tānk, as shown by the specimens marked Sh.i in Pl. IV. But by the side of the usual geometrical patterns in black on red I noted the comparative frequency of fragments with designs more roughly executed in varying shades of brown or purple over light ground which suggested continued later occupation.

Fortified plateau above left bank of river.—On the opposite side of the Kurram bed a bold and much-eroded hill range strikes approximately from east to west. A steep spur projects from it towards the river and forces it to make a sharp westward bend before it finally emerges from the defiles of its middle course into the open alluvial plain at Kurram-gaṛhi. The very end of this spur known as *Chunai-warsak* falls off with steep cliffs and detritus scarps to the winter channel of the river which washes its foot. At a height of about 120 feet above the latter it bears a small plateau, overlooked from the north-east by precipitous cliffs and bounded along its northern side by a deeply cut ravine which runs down to the river (see the sketch plan, Pl. 1). This plateau over an area of about 200 yards from NE. to SW. and a little

over 100 yards across is closely covered with small mounds formed by the debris of rubble-built structures. The wall which enclosed it is clearly traceable in the shape of a decayed mound of large rough stones along the northern face. There it forms a kind of outwork above the mouth of the previously mentioned ravine; after curving round this it runs up straight to the bare cliffs overlooking the plateau. At that corner a tower may once have protected the enclosure. From there the wall runs down to the southern angle of the defended area, protected here by a small round bastion, and then turns towards the river face of the plateau. It then follows this to the projecting outwork in a line adapted to the small ravines in which the drainage from the plateau finds its way down over the steep scarp towards the river.

Fastness of Pādshāh-kōṭkai—Local tradition has duly recognized the character of this small acropolis by applying to it the name of *Pādshāh-kōṭkai*, 'the king's castle'. Considering its position, made very strong by nature but inconvenient of access at the same time, as well as the very limited space available, this walled enclosure was obviously more likely to have served as a place of safety for a ruler than as the permanent abode of a settlement. That a large settlement had, however, once existed in the close vicinity of this hill stronghold became evident to me as I looked down from its southern angle towards the great flat-topped alluvial terrace which stretches from the southern foot of the spur towards the left bank of the river opposite the village lands of Kurram-gaṛhi. The one mile to the inch map shows this great terrace to rise fully 42 feet above the shingle bed of the river; it is hence left wholly uncultivated. As my eye passed over its bare expanse I could clearly recognize a perfectly straight line crossing it from the escarpment on the river bank towards an eastern outlier of the same hill spur on which I stood. This line, about half a mile distant, could only mark the remains of a wall or rampart, and my guides when their attention was called to it, at once recognized it as the *mūrcha* or 'wall'. Scattered mounds cover the area which extends between it and the foot of the spur and which it obviously was intended to protect.

Area of former occupation below stronghold.—I greatly regretted that the approach of darkness precluded examination there and then, and even more that the definitely settled arrangements for my passage through tribal territory in Southern Wazīristān made it impossible for me to spare time for a return to the site from Bannū. All I could do was to hope for the chance of a visit on a future occasion and to arrange meanwhile with Major L. E. Barton for a rough survey of the ground. The sketch plan which he very kindly had prepared for me by a subordinate of the Irrigation Department, clearly shows there an area roughly triangular in shape, approximately half a mile long and three furlongs across where widest at its base by the river. On this side and along the previously noted line running north-east towards the foot of the spur the remains of a circumvallation are evidently still traceable. The plan indicates small mounds from decayed dwellings within this area. It is thus made certain that this site was once occupied by a

settlement of considerable size. Only examination on the spot could furnish evidence as to whether its occupation was coeval with that of Pādshāh-kōṭkai. With regard to the latter it must suffice for the present to state that among the pottery debris scattered both on the plateau and on the slopes below it fragments painted with geometrical patterns of an early type, black on red, were particularly frequent (for specimens, see Sh.ii. 3-5, 7-9, Pl. IV). Nothing was known to my guides or those whom I subsequently questioned at Shahīdān of coins or other metal objects having been found at the two sites.

Canal heads and Ziārats of Kurram-gaṛhi.—It was getting dark by the time we had returned to Shahīdān and passing down by the right bank of the river had gained the border fort of Kurram-gaṛhi. It stands close to the points where all the principal canals of the great Bannū oasis take off from the river. The position thus exactly corresponds to a *su-bāshi*, the 'head of the waters', to be found wherever the rivers irrigating the oases of the Tārīm basin debouch from the foothills of the K'un-lun or T'ien-shan and feed the canal heads. It was hence curious to find here, too, local sanctity attaching to the spot, and attested by much-frequented Ziārats with extensive graveyards around just as is regularly the case at the 'Su-bāshis' of oases in Chinese Turkestān.[1] It is very probable that the explanation has here also to be sought in the survival of local worship from pre-Muhammadan times such as is proved by archæological evidence for many modern sacred sites in Central Asia and other now Islāmic countries.[2] It was not till late after nightfall that I reached the hospitable roof of the Deputy Commissioner's Bungalow, once occupied by General Nicholson, and received there Major Barton's kind welcome.

SECTION iii.—PAST THE WAZĪRISTĀN LIMES AND BEYOND.

Journey from the Tōchī to the Gumal.—The next few days of my journey did not lead me to survey more of ancient sites, but were nevertheless very instructive and full of quasi-antiquarian interest. They took me past Mīrānshāh, Razmak, Jandōla along most of that great system of military roads which since the operations following the Wazīristān rising of 1919-20 have been constructed right through the heart of that forbidding hill region. They are to assure its pacification and thus security on a particularly troublesome part of the Indian North-west Frontier. Then after letting me see what may fitly be described as the exact modern counterpart of a great Roman *Limes* of early Imperial times, my journey beyond it, from Sarwekai Fort to the Gumal, allowed me, while moving and camping among Wazīr tribesmen, to gather impressions of such conditions of life as may safely be assumed *mutatis mutandis* to have prevailed in these barren hills for many centuries past.

Problem of Wazīristān border.—It could not be my task here, even if I had the leisure and means to collect all the requisite data, to sketch in

[1] Regarding local worship at 'Su-bāshi' sites, cf. *Serindia*, iii. pp. 1151 sq., 1155; *Innermost Asia*, i. pp. 64, 69, 167, etc.

[2] See my 'Note on Buddhist local worship in Muhammadan Central Asia', *J. R. A. S.*, 1910, pp. 839 sqq.

any detail the successive phases which the treatment of the problem presented by the Wazīristān border has undergone since the time when the extension of the British 'Rāj' over the Trans-Indus portion of the Sikh dominion entailed the necessity of protecting its settled districts from Wazīr raids and possible aggression from Afghān neighbours beyond.[1] But the analogies to the problems which the Roman Empire had to face on its frontiers, and especially those towards nomadic or semi-nomadic neighbours, are so close that brief reference here to the similarity between the methods there followed and those successively adopted in this modern instance seems justified in the interest of the historical student.

Advance into Wazīristān.—For nearly half a century after 1849 the policy followed on this portion of the Frontier bore the character of quasi-passive defence. A long series of raids and outrages in which the powerful Mahsūd section of the Wazīrs had the chief share, used to be met merely by occasional punitive expeditions and prolonged blockades of the tribes along the administrative border. When attempts made by the Amīr of Afghānistān to obtain control over Wazīristān led by 1894 to a demarcation of the border along the so-called Durand line passing west of Wazīristān, a marked change of policy followed. The operations necessitated by this demarcation were found to involve the opening up of certain main routes leading through Northern and Southern Wazīristān. The safeguarding of these routes from tribal attack, such as occurred particularly at Wānā, was soon found to necessitate the establishment of permanent military posts along them and of Political Agencies to control certain tribal areas which had sought British protection.

Analogy to earliest Roman Limes lines.—The measures adopted during this phase of 'forward policy' have their exact *pendant* in the earliest *Limes* lines of the Roman Empire. These under Augustus and Tiberius were military roads advanced beyond the administrative border for the protection of the latter against tribal inroads and guarded by fortified posts of auxiliary troops.[2] That these Limes roads ordinarily followed the main valleys, the easiest lines for penetration offered by nature, is a fact exactly reproduced in Wazīristān. The routes opened after 1894 with a view to the control and pacification of the tribes were guarded at intervals by military posts and led up the Tōchī, the Gumal and for some distance up the Tānk Zām. The garrisons of regular Indian troops then placed in the forts of Mīrānshāh, Wānā and Jandōla occupied positions exactly corresponding to the *castella* or *praesidia* established at the heads of those Limes routes of the earliest type.

[1] The history of the relations with the Wazīr tribes since the British annexation of the Trans-Indus districts down to Lord Curzon's Viceroyalty is sketched in the main outlines in the *Imperial Gazetteer, Provincial Series, North-West Frontier Province*, 1908, pp. 243-257. The articles there dealing with Northern and Southern Wazīristān contain also a succinct but admirably clear account of the physical features of the country and of its tribal inhabitants largely from the pen of Mr. E. B. Howell.

[2] I take my references to the systems successively adopted in the construction of the *limites* of the Roman Empire and to the policies they were intended to serve from Professor E. Kornemann's illuminating treatise on 'Die neueste Limesforschung im Lichte der römisch-kaiserlichen Grenzpolitik,' *Klio* 1907, pp. 73-121; for the principles underlying the early system of Limes roads, see *loc. cit.*, p. 79 sq.

Events of 1897 and 1919.—These routes safeguarded by chains of posts continued to serve their purpose as far as the protection of the directly controlled tribal area was concerned, in spite of recurring outrages and such local attacks as that of 1897 at Maizār on the upper Tōchī which started the great Frontier rising of that year. Nor did the substitution in 1904 for regular Indian troops of Militias raised mainly from local tribesmen and the withdrawal of the former to strengthened bases within the administrative border bring about any material change; it was a measure for which the history of the Roman Limes systems offers also exact parallels. But that the pacification of the troublesome tribal area was still far from being attained the events of 1919 proved only too clearly. The Afghān attempts at invasion of British territory by the routes of the Khyber and Kurram were accompanied by a general rising of all Wazīr tribes. This resulted in all the forts and posts guarding the routes up the Tōchī and towards Wānā being deserted by the local Militia detachments or otherwise taken by the tribesmen. The revolt spread into the northern portion of Balūchistān. It needed a prolonged and very arduous campaign, carried out under very trying conditions of climate and ground, before the submission of all Wazīr tribes to political control could finally be secured.

Construction of great roads after Wazīr campaign.—These operations lasted in parts into the year 1922 and involved heavy sacrifices. In order to assure the results attained at such great cost those responsible for the safety of the Indian Empire adopted a course which presents striking points of resemblance to the system introduced on the frontiers of the Roman Empire during the period of resumed expansion from Claudius down to the Flavian Emperors and Trajan.[1] The routes leading up the Tōchī and up the Tānk Zām were turned into magnificent highroads suited for mechanical transport of the heaviest sort. Ultimately they were joined up by a great line of cross communication which passes through the very heart of Wazīristān over the high plateau of Razmak under the central massif of Shuidār and past the headwaters of the Khaisōra, tracts before inaccessible and practically unexplored.

Protection of Wazīristān Limes.—This great 'Circular Road' with its permanent bridges across dangerous torrent beds and its numberless cuttings past difficult mountain sides, is a triumph of modern engineering. Protected as carefully against human attack as it is against the vicissitudes of nature, it now constitutes a true *Limes* of the type to which the term was κατ' ἐξοχήν applied during that notable period of the Roman empire's history above indicated.[2] A wise policy of conciliation has by means of very liberal contracts made the construction and maintenance of this modern Limes line a source of very great material profit to the tribal sections through the area of which it passes. The same purpose is served by employing local tribesmen or 'Khassa-

[1] For this system and the new Limes lines supporting it, cf, Kornemann, *loc. cit.* pp. 83 sqq. It received a particularly instructive development under Domitian in the north of the province of Britannia and in the territory across the Middle Rhine.

[2] See Kornemann, *loc. cit.* pp. 84 sq., for a Roman 'circular road' of a closely corresponding character forming part of the Limes beyond the Middle Rhine.

dārs' to look after the safety of ordinary traffic on the road, of course against ample 'tribal allowances.' It is a system which Roman Limes routes, too, are likely to have known on more than one frontier. But more reliable elements have replaced the Wazīrs in the Corps of Scouts which have succeeded to the vanished Wazīristān Militia.

Fortified camps and Khassadār posts.—Thus during the two days' motor drive which took me from Bannū past Mīrān-shāh up to the Razmak plateau, then slightly covered with snow, and down again by the Tānk Zām to Jandōla and Sarwekai Fort, a total distance of over 140 miles, I had constantly before my eyes scenes which seemed to take me far back in the ages. To the stations which the *cohortes* and *alae* of Roman auxiliaries had held from Agricola's line in North Britain as far the Arabian Limes, from Syria down to the Red Sea, there exactly correspond here the standing camps of Indian battalions with their fortified outposts we passed by at intervals. Between them there showed, perched on commanding heights, small roughly built towers meant to shelter Khassadār pickets (Fig. 1) like the *burgi* of the African and Arabian borders.[1]

The castrum of Razmak and a Roman Limes 'in being.'—Still more interesting it was to find essential features of a Roman legion's *castrum* reproduced in the large rectangular cantonment which situated on the high and healthy plateau of Razmak, about 6,500 feet above sea level, shelters a whole brigade including British troops, with artillery, auxiliary services, etc.—Substantial stone-built structures of all sorts line its roads, and where the two principal thoroughfares leading from the gates cross each other, like the *Via Principalis* and *Decumanus* of a Roman castrum, there rises the Residency building, just as if it were the Praetorium. It holds the summer headquarters of the political authorities controlling Wazīristān. While paying my visit there or inspecting the large well-filled market which has sprung up during the very few years since Razmak has come into being, I could not help thinking how interesting will be the task of the archæologist who, say, some two thousand years hence will have the chance of exploring the ruins of this Limes. But instructive lessons, too, can be learned from this Limes while it is still 'in being.' Thus when I met the movable column, that striking arm of the Wazīristān force marching back on the road towards Razmak, it became easy to realize how great the advantages of mobility assured by a highly developed road system must have been for those Roman legions which for centuries successfully defended the far-flung borders of the empire against the pressure of formidable hosts and ever threatening barbarian inroads.

Start from Sarwekai Fort.—By the afternoon of January 20th I had reached Sarwekai Fort, now the last post held by the South Wazīristān Scouts towards the Gumal and Wānā. There I found my camp safely arrived from Tānk and on the following morning set out for that part of my tour which was to take me through tribal territory beyond the present line of the 'Limes.' Khān Sāhib Nawāz Khān, the capable Political Tahsīldār dealing with the Wazīr

[1] Cf. Kornemann, *loc. cit.* pp. 111 sqq.

clans ahead, had made all tribal arrangements which were needed to assure my safe passage. It was the first to be made on this ground by a European Officer since the events of 1919, apart from the visit which had been paid to Wānā in the preceding year by Mr. Howell, then Resident in Wazīristān, accompanied by the movable column. For a distance of about 9 miles up the Warōcha defile and the bare uplands of Madijān beyond Captain H. H. Johnson, commanding at Sarwekai, kindly accompanied us with a troop of South Wazīristān Scouts, while pickets crowned the heights. We took leave from him at a small destroyed post which commands a grand view, from the snow-covered massif of Shuidār far away to the ranges above Zhōb, and then descended to the valley of Dargai-ōbo draining towards Spīn.

Passing under Wazīr protection.—There a large gathering of Wazīr headmen, all mounted on ponies of the hardy local breed, with a posse of Khassadārs and other followers, was waiting to take charge of us. Wazīrs are everywhere a highly democratic community. Hence the number of 'Maliks' and 'Sardārs' from the Zalīl-khēl, Tōjī-khēl and Dotannī clans and their sub-sections whose company was considered essential was not less than forty, and Khassadār levies to provide guards more than doubled it. All of them had taken their share in the heavy fighting which accompanied the retirement in 1919 from Wānā of the few British officers at that fort with the loyal remnant of its garrison. But this in no way detracted from the cordiality of their welcome. The post of Dargai-ōbo lay, of course, in ruins, having been burnt and destroyed at the time like every other held before by the Wazīristān Militia.

March past Dargai-ōbō to Spīn.—Our way led to the basin of Spīn, lying S.E. of that of Wānā, where Mr. Howell had kindly drawn my attention to the existence of certain old remains. A couple of miles after leaving Dargai-ōbo I noticed a little to the north of the route a low wall or platform built of rough stones, known as *Mōmai-ghoruskai*, about 54 yards long and 2 feet broad. I could learn of no local tradition attaching to it, nor did the bare stony plateau either here or anywhere, on the whole way down to Spīn show any trace of former occupation. So the idea suggested itself that like the long and narrow stone mounds known as Chihil-gaz Sāhib at Peshawar and elsewhere in the Peshawar valley and venerated as the resting places of some giant-like Muhammadan martyr and saint, it might mark the spot where a symbolic representation of Buddha in Nirvāṇa had once enjoyed local worship. Some two miles before the barren valley led down to the plain of Spīn we came upon a small stream which was said to be fed by the river of Wānā. Seeing that the map showed the course of the Wānā Toī[1] to lie fully six

[1] It is of some interest to find the term *toī*, in the general sense of 'river' used on ground which probably from a very early period has held an Iranian-speaking population. The word is obviously identical in origin with the appellation *Tohī* 'which is now borne by several mountain streams joining the Jhelam and Chenāb from the southern slopes of the Pīr Pantsāl Range; see my note on *Rājataranginī*, vii. 53. 'Tohi' itself is a derivative of the Sanskrit term *tauṣī*.

The word *toī* in the above generic sense is known among a portion of the Khattaks in the Kohāt District and possibly also elsewhere across the Indus. Is it possible that the *Tauṣī* of the Kashmīr Chronicle is only the Sanskritized form of a term originally not Indian, or is *toī* one of the many words which Pashtu has borrowed from Indo-Aryan vernaculars ?

miles away in a direct line and separated from Spīn by a conspicuous hill chain, it looked to me at the time like a very curious case of bifurcation. It was only after my return from this tour that I learned the true explanation from Mr. Howell, now Resident in Kashmīr. The small stream which descends from the ruined post of Tanai and carries whatever water is available for irrigation in the plain of Spīn, is indeed fed by the river from Wānā. But it is only the construction of a Kārēz at a low saddle of the dividing hill chain which has rendered this puzzling diversion possible.

The plain of Spīn.—The plain of Spīn, quite level and of obviously fertile soil, looked desolate enough when we reached it that afternoon in the face of an icy gale from the south-west. It extends for fully six miles from north to south and is close on five miles across where widest; its average elevation is about 3,600 feet. But only a very small portion of this area on its western side appears to be under cultivation, and this too is only intermittent. The clusters of mud-built hovels, scattered over the bare treeless expanse, were practically deserted; for their owners who occupy them only during part of the spring and autumn had moved with their flocks to seek warmth in the lower valleys. But now these 'villages' of the Zalīl-khēl Wazīrs looked even more forlorn; for a large 'Lashkar' of Sulaimān-khēl Powindas had in the preceding autumn overrun Spīn in retaliation of Wazīr attacks committed upon their 'Kāfilas' while they were moving through the Gumal defiles. After overcoming the Zalīl-khēl in an unequal fight they had burned their homes and destroyed their crops. The damage done to these poor homesteads might not have implied great material losses. But their partial destruction made it difficult for our protecting host to find there adequate shelter from the bitter cold and cutting winds which did not cease blowing while we were north of the Gumal. Yet the men never complained, in spite of the contrast their scanty personal outfit presented to their expensive up-to-date armament.

Site of Zarīf-Khān-ghundai.—Pitching camp between the Utmān-khēl and Kāka-khēl hamlets I visited next day the few old sites reported. The one known as *Zarīf-Khān-ghundai*. proved to occupy a small rocky hillock about half a mile to the north-west of the Kāka-khēl hamlet. Its top rises to about 40 feet above the surrounding level ground and along the narrow crest measures about 48 yards. Numerous potsherds cover the slopes and prove that the convenient defensive position here provided must have been occupied at different periods. Such pieces, painted or decorated, as could be picked up among the plentiful plain ware of coarse make showed a general resemblance in patterns to those from the Drāband and older Tānk mounds (see the specimens Z.K. 2-6, Pl. IV). More interesting is the well-modelled pottery mask, representing a grotesque half-human head (Z.K.1, Pl. IV); it shows a very curious resemblance to the appliqué masks of jars representing grotesque heads, such as are frequent among the terracottas found at Yōtkan, the site of the ancient Khotan capital.[1]

[1] See e.g. *Ancient Khotan*, ii, Pl. XLIV, Y.0016; Pl. XLVII, Y.009.j; *Serindia*, iv, Pl. III, Yo. 001 of: Yo. 0024.n.

Remains of Khōre-narai.—Another small ruined site was traced about 2½ miles to the north of our camp in a stony valley called *Khōre-narai.* Where its torrent bed containing a small stream turns off to the north-west I found wall foundations of rough stones exposed on a mound which was said to have been excavated 'a long time ago' in search of treasure. The structure marked by them appears to have extended over an area of about 40 by 18 feet and to have contained two or three rooms. To the north-west at a distance of about ten yards it was possible to make out the foundations of a circular structure, also dug up, measuring about 18 feet in diameter and likely to have been a Stūpa. Some 30 yards to the south-east I noticed a small circular mound of rough stones, circ. 12 feet in diameter, apparently undisturbed, which might also mark the remains of a Stūpa. The whole ground here is covered with small boulders; but as a small plot close by cleared for a rough storage tank shows, it might have been once capable of cultivation. The reported 'inscriptions' for the sake of which I had been taken up this valley, were found to be mere *graffiti* on detached pieces of rock lying at the foot of steep cliffs a quarter of a mile further up where the valley narrows to a gorge. They consist of several groups of small circles and ovals, some divided by a line in the middle and all very roughly engraved. There was nothing to indicate their age.

Circumvallation of Khidrai-kōt.—Near the south-western angle of the Spīn plain and beyond the last fields intermittently cultivated belonging to the village of the Shaikh Bazīd section I examined the ruined circumvallation known as *Khidrai-kōt.* It lies close to the foot of a low saddle over which passes the route leading from Spīn down to Toī-khula where the Wānā Toī joins the Gumal river. The ruined fort which undoubtedly dates from Muhammadan times and can scarcely be older than the Moghul period, comprises, an inner enclosure measuring about 48 by 79 yards and an outer circumvallation (*see* sketch plan, Pl. 8). The latter adjoins on the south-east and north-east and on those sides shows walls of 220 and 169 yards in length. The walls of both the inner and outer fort, 6½ and 5 feet thick respectively, are built of rough stones and defended by small round bastions at short intervals. But these like the walls are badly decayed, evidently owing to poor construction without mortar. What plain pottery could be found within the enclosed area was all coarse and of recent look. According to local tradition the fort was intended to facilitate the collection of grazing dues from Powinda caravans which at one time were accustomed to use this route as an alternative to the one from Toī-khula down the Gumal. If this tradition is right—and the position of Khidrai-kōt supports it—the construction of this fort might belong to a period when the authority of the Moghul administration controlling the districts along the Indus was sufficiently strong to assert itself also on the side of the present Afghānistān and on the routes leading to it.

March to Spālipān.—On January 23rd we left Spīn after another bitterly cold night in order to move towards the Gumal. A report recorded by Dr.

Noetling in 1898 about an old mound near Gul-kach had induced me to seek the entry into the Zhōb Agency on the Balūchistān side of the Gumal not by the nearest line *via* Khajūrī-kach where the Zhōb joins the Gumal, but higher up on the latter. The ready agreement of the authorities on the Balūchistān side made this divergence from the nearer and more easily controlled route practicable. A short march past Khidrai-kōṭ brought us to Spālipān on the left bank of the Wānā Toī where we camped near a ruined fort built by the Dotannīs. A section of this tribe of the Ghilzai Powindas had held before most of the land on the lower course of the Wānā river and had only in recent years been ousted from their seats by a confederation of the neighbouring Wazīr clans. The latter's tenure of this conquest was still precarious, as the Powinda invasion of the preceding autumn had shown, and this amply explained the absence of habitations at Spālipān and the very scanty cultivation to be seen in the comparatively open and fertile valley.

The track of Powinda migrations.—On the following day we moved first south across a wind-swept stony plateau and near the mouth of a wild rocky gorge leading up to the Kanserwarai pass came upon the well-marked track which the Powindas follow in their annual migrations down and up the Gumal. Their route diverges here from the actual valley of the river in order to avoid the difficult gorges in which the latter has cut its passage from below the basin of Gul-kach down to Toī-khula. It was interesting at different places along the track to note large heaps of stones which the hands of those hardy wayfarers had piled up probably in the course of centuries. The custom of depositing stones at them is likely to originate from the superstitious wish to conciliate superhuman powers that might interfere with safe progress, just as is the case with the 'Pīrs' who are propitiated with similar devout offerings by wayfarers on the passes of Kashmīr and neighbouring mountain regions[1] But characteristically enough the Wazīrs who often enough select these defiles for making predatory descents upon Powinda Kāfilas and flocks when inadequately guarded, are inclined to look upon these stone heaps as marking 'treasure' hidden of old.

Across Kanserwarai pass to Gumal R.—The ascent to the pass some 4,000 feet above sea level, lay for a short distance in a narrow boulder-filled torrent-bed. It was proof of the surefootedness of the many thousands of Powinda camels which annually pass it, that we met here with only two dead animals. From the top of the pass a very striking view opened across the wide basin-like valley of the Gumal to the south-west. A maze of eroded clay terraces, curiously recalling those which I remembered well from the terminal Su-lo-ho valley far away on the westernmost border of true China[2], was seen to fill the foreground. The map marks it by the name of Khatekhar Gulmai. When we had reached its edge after an hour's easy descent, it became clear that this strange belt of steep whitish terraces clearly marks an

[1] Cf. my *Rājataranginī* translation, Vol. ii., p. 397, for evidence as to the pre-Muhammadan origin of the custom in Kashmīr and other Himalayan mountain regions.

[2] Cf. *Serindia*, iii, pp. 575 sq., *Desert Cathay*, i, pp. 532 sqq.

ancient lacustrine basin of the Gumal which was drained only when the river had cut its tortuous bed below Gul-kach deeper. After moving through a succession of these eroded clay terraces and of gravel-marked old drainage beds between them, we reached a flat alluvial plain and beyond it a line of isolated rocky ridges extending along the actual flood bed of the Gumal. They form the extreme western outliers of a bare hill chain which stretches down from the Kanserwarai peak (4,763 feet on the map) and hems in the river from the north.

Hillock of Mirawas-dhērai.—My previous enquiries about an old mound, such as the notice already referred to had led me to look for, had remained fruitless, though several of the Wazīr Maliks and others with me were familiar with the ground—probably from former raids. But Jāngul, an old Dotannī Malik, now guided us to a small spur, rising about 70-80 feet above the left bank of the Gumal and separated from the foot of the hill chain eastward by a dip. On its top we found a low enclosure built with rough stones extending for about 150 yards from north to south and some 60 yards across. Plenty of potsherds cover the top and slopes, proving prolonged occupation such as the position convenient for defence and access to water would invite. The pottery remains consist mainly of coarse red ware of uncertain date. The few pieces picked up showing traces of decoration in paint or relief were too fragmentary to afford approximate chronological guidance. Jāngul knew the place by the name of *Mirawas* (*Mīr Abbas* ?)-*dherai*. He denied any of the other isolated hillocks further west showing marks of occupation. I am inclined to believe that the information received by Dr. Noetling, while at Fort Sandeman, about an old mound near Gul-kach [1] related to this place. It can be accounted for by the fact that the Pashtu term *dhērai* or *ghuṇdai* is indiscriminately applied both to natural hillocks and artificial mounds formed by the accumulation of debris. Wazīr raids proceeding at the time had made it impossible for Dr. Noetling to visit the reported site and verify his Pathān informant's statement.

Gumal R. crossed to Gul-kach.—We were still on the top of the hillock when a party of mounted men was sighted riding towards us from the ruined post of Gul-kach on the right bank of the river and about 1½ miles away to the west. They proved to belong to the detachment of the Zhōb Levy Corps under Captains Meade and Palin which under previously made arrangements had proceeded from the fort of Mīr Alī Khēl, on the Zhōb to receive and escort us. After a very kind welcome by the two British Officers, not readily recognizable at first in their unconventional Pathān guise, we crossed the wide bed of the Gumal, holding but shallow streaks of water in places, and camped at the Gul-kach post. It was wrecked during the rising of 1919 and has since been abandoned. It was scarcely to be wondered that my Wazīr protectors were received at first with distinct reserve by the Zhōb Levy Corps men, all Pathāns from distant parts of the Frontier; for the latter recognized among them more than one raider whose acquaintance they believed to have made

[1] See *Verhandlungen der Berliner Anthropolog. Gesellschaft*, 1899, pp. 101 sqq.

before on less pleasant occasions. Traditional notions of Pathān hospitality, however, prevailed, and when the Wazīr tribesmen left us next morning they were well contented and their farewell as hearty as it was on my part. It was pleasant to learn afterwards as a sign of the good feeling prevailing, anyhow for the time being, that a formal epistle was weeks later received from the Wazīr headmen who had so well looked after us in their hills. It conveyed their thanks for the hospitable reception accorded by the officers and men of that Corps whose special task it is to keep out or meet Wazīr inroads into Zhōb.

Hsüan-Asang's description of Wazīristān.—The valley of the Gumal may rightly be considered as the southern limit of the well-defined hill territory now known as Wazīristān, even though some minor Wazīr tribes have established their footing also in a part of the wedge-like strip of ground, otherwise a true noman's-land, which divides the lowest course of the Zhōb river from the mouth of the Gumal. Thus this will be the right place before proceeding further south to note what scanty data concerning the historical topography of Wazīristān I can trace. The earliest of them is contained in a notice of Hsüan-tsang's 'Memoirs of the Western Countries.' In concluding his account of the kingdom of *Fa-la-na* the identity of which with Bannū and the adjacent part of the Dērajāt is not subject to doubt, the Chinese pilgrim tells us the following:[1] 'According to the report of the local people, on leaving this territory one comes westwards to an adjoining country called *Ki-kiang-na* (transcribed *Chi-chiang-na* according to the Wade system) situated among mountain valleys. There are separate local chiefs but no supreme ruler. This country abounds in sheep and horses. It possesses excellent horses of a remarkable type; it is a breed very rare in the other countries and highly prized in the neighbouring states'.

Location of Hsüan-tsang's Ki-kiang-na.—The description given of *Ki-kiang-na* (Chi-chiang-na) and the position indicated for it leave no doubt that the hill region now known as Wazīristān is meant, together perhaps with some adjacent mountain tracts of the same character to the south of the Gumal. When discussing this passage before in connexion with Hsüan-tsang's account of Fa-la-na or Bannū,[2] I had already occasion to point out 'how accurately the Chinese pilgrim's account represents the conditions prevailing down to our own age in Wazīristān and the whole mountain region along the Sulaimān Range. We see also clearly that the breeds of horses now known as Wazīr and Balūch were indigenous in these mountains probably long before the advent of the tribes from which they now take their names.'

Arab historians' mention of Qīqān.—This location is fully supported by the references to this region, rather vague as they are, which are preserved by early Arab historians. It has been long ago recognized by European scholars

[1] Cf. Stan. Julien, *Mémoires de Hiouen-thsang*, ii, p. 185; Beal, *Si-yu-ki*, ii, p. 282; Watters, *Yuan Chwang* ii, p. 262. For the identification of *Fa-la-na* with Bannū, first rightly indicated by General A. Cunningham, cf. my *Report on Archaeol. Survey Work, N. W. Frontier and Baluchistan*, 1904-05, pp. 5 sq.

[2] See *loc. cit.* p. 6.

that the territory of *Qīqān* which they mention to the north of Sind and near the frontier of Arokhāj (Arachosia, *i.e.*, Kandahār), bears a name exactly corresponding to Ki-kiang-na.[1] A passage of the historian Baladhūrī which is probably the earliest of these notices claims special interest in this respect as it distinctly connects Qīqān with Bannū.[2] It tells of an early raid which the Arab invaders of Sind under the leadership of al-Muhallab undertook in A. D. 664-5 and in the course of which they came to '*Banna* and *al-Ahwār* which lay between Multān and Kābul.' On the same raid the Arabs are said to have met and defeated in Qīqān a large host of Turkish horsemen the fastness of whose mounts is specially praised.

Horses and tribes of Qīqān.—As I have pointed out before, it cannot be subject to doubt that by the *Banna* of the Arab historian the Bannū district is meant[3]. This, together with the position indicated between Multān and Kābul suffices to confirm the identification of Qīqān with Wazīristān, even though the territory of al-Ahwār cannot be determined at present.[4] The mention made of the fine horses of Qīqān is particularly significant; for it fully agrees with what Hsüan-tsang had heard of Ki-kiang-na and with the fame which the hardy and fast ponies of Wazīristān, like the somewhat larger breed of the Balūch hill tribes further south on the Dērajāt border, have enjoyed in the Indus Valley and the neighbouring parts of the Panjāb down to our times. That the tribes inhabiting 'Qīqān' at the time of the early Arab inroads into the lower Indus valley in the seventh century are spoken of as 'Turks' is not surprising; for we know from the Chinese Annals of the T'ang dynasty that in the great territory of Ts'ao-chü-ch'a, corresponding to the Arokhāj and Zābulistān of the Arabs and having its capital at Ghazni, on the western borders of Wazīristān, the population was at that very period largely of Turkish stock.[5]

Older ethnic elements in Wazīristān.—Whether the later Muhammadan chronicles furnish any data as to events affecting this remote portion of the borderland between India and Īrān I am not in a position to ascertain at present. Nor can I trace any definite indication as to when it passed into the possession of its present occupants, the Wazīr tribes. That the remnant of an older Iranian ethnic element survived there is proved by the Ōrmurī language, apparently the descendant of the original speech of the Kābul region; it is spoken by a small non-Wazīr community at Kaniguram, in the very heart of

[1] Cf. Reinaud, *Fragments arabes et persans*, pp. 184 sqq., 214; *Mémoire sur l'Inde*, p. 176; Elliot, *Historians of India*, i, pp. 381 sqq.; V. de Saint-Martin, in Jullien, *Mémoires de Hiouen-thsiang*, ii, p. 414.

[2] I take the reference from Marquart, *Ērānšahr*, p. 273, where the passage is fully translated.

[3] This is now recognized also by Professor Marquart (see *Festschrift für Eduard Sachau*, 1915, p. 264), though in *Ērānšahr*, p. 276, he was inclined to look for *Banna*: *Fa-la-na* in Gandāwā, Sind.

[4] In other passages of Baladhūrī and Muqaddasī quoted by Marquart, *Ērānšahr*, pp. 275 sq., Qīqān is brought into close relation with Sind, Sibi and Khorāsān. The last name is still at the present day applied generally to the whole of the Afghān uplands to the west of Southern Wazīristān and Zhōb.

[5] See Chavannes, *Turcs occidentaux*, pp. 160 sq. For Arab notices telling of Turkish tribes established since early times in Zābulistān and neighbouring eastern parts of the present Afghānistān, cf. Marquart, *Ērānšahr*, pp. 250 sqq. That the present Ghilzai, though of Pashtu speech, comprise a considerable admixture of this old Turkish population, probably semi-nomadic in its habits, is a supposition which has much to recommend it; cf. Marquart *ibid.* p. 253.

the Wazīr country.[1] But whatever the ethnic changes may have been, it seems clear that the conditions imposed by the geographical character of that barren mountain land must have at all times exercised a predominant influence upon the life led by its people and the rôle they have played with regard to their more civilized neighbours eastward.

CHAPTER II.—PREHISTORIC REMAINS IN ZHŌB

SECTION I.—THE MOUND OF PERIANO-GHUNDAI

March from Gumal to Mīr Alī-khēl.—From the information which Khān Bahādur Sharbat Khan, C.I.E., Political Agent, Zhōb, had kindly collected and communicated beforehand as regards old remains in Zhōb as well as from that otherwise available to me, it was clear that no sites claiming archæological interest could be looked for in that northernmost portion of the Agency which extends from the Gumal river to the vicinity of Fort Sandeman, its headquarters. In view of this and of the complete absence of permanent habitations or local resources on either side of the Gumal between Gul-kach and the Afghān border, I had no special reason to regret that the exhaustion of the supplies brought by the detachment of the Zhōb Levy Corps obliged us to leave Gul-kach for the post of Mīr Alī-khēl on the morning after my arrival. The march of 25 miles led across a bare peneplain cut up by dry drainage beds up to the Girdao plateau and then from the ruined post at the latter down through narrow rocky defiles to the valley of the Zhōb. Apart from a well sunk at the Girdao post there was no water to be found on this march, nor did our little column sight any human being except the pickets from Mīr Alī-khēl sent out to guard the steep heights rising above the defiles. Distant views offered in places towards peaks of the Takht-i-Sulaimān to the east and towards the Spēra-ghar and other lower ranges on the side of the Afghān border. It was a typical landscape, fitly illustrating the prevailing breadth and general barrenness of the valleys which are drained by the Zhōb and make up the wide border district named after it. That in spite of the improved conditions due to the Pax Britannica introduced since 1887 the first rough census taken in 1901 showed a total population of less than 70,000, including nomad tribes, for an area of over 9,600 square miles,[2] is a fact which deserves to be kept in view when considering the remains left behind by the ancient occupants of these uplands.

Arrival at Fort Sandeman.—From the post of Mīr Alī-khēl the use of a motor car kindly provided by the officers of the Zhōb Levy Corps allowed me on January 26th to reach Fort Sandeman by the military road engineered

[1] Regarding Ōrmuṛī and in its peculiar position with reference to the Western and Eastern groups of Iranian languages, see now Sir George Grierson's remarks in *J. R. A. S.*, 1927, pp. 369 sq. and Dr. G. Morgenstierne's *Report on a Linguistic Mission to Afghānistān* (Oslo, 1926) there discussed.

[2] See *Baluchistan District Gazetteer Series*, Vol. i, (Zhōb District) p. 53.

along the right bank of the Zhōb. Arriving there in advance of my camp I received the kindest welcome from Khān Bahādur Sharbat Khān, the Political Agent; by his most willing help and by the convenient base which the hospitable shelter of his official residence furnished, my subsequent labours within the Zhōb area were greatly facilitated. I had reason to feel particularly grateful for the thorough local enquiries about old sites which under his instruction Khān Sāhib Ghāzī Khān, in charge of the Fort Sandeman Tahsīl, had made beforehand with zeal and intelligence; for they enabled me to pay reconnaissance visits during the next few days to all those sites which were within convenient reach of the Agency headquarters, and thus to arrange my exploratory programme on lines best adapted to secure economy of time and labour. Before I proceed to record the results of these explorations in the order in which they were carried out, I may conveniently offer here some preliminary remarks about the general position of the several sites and the reason which specially attracted my attention to them.

Irrigation from Zhōb R. restricted.—Owing to the great aridity of the climate which even in the most favoured portion of the Zhōb valley does not provide an average rainfall of more than about 9 inches per annum, cultivation depends there almost wholly on irrigation. The supply of this from the Zhōb river, which in its course of some 240 miles collects most of the available drainage, is greatly limited by the fact that even below the point from where its bed first carries a more or less perennial stream, this for a very considerable distance cannot be utilized for irrigation owing to the height of its scarped banks.[1] It is only some ten miles above Fort Sandeman, in a direct line to the south-east, that the level ground near the river bed sufficiently widens to afford adequate space for irrigated land. Where the wide alluvial fan of the Kapīp stream passing Fort Sandeman strikes the course of the Zhōb from the east some five miles further down, this stretch of cultivable ground considerably expands for some distance. But it soon comes to an end near the northern corner of this fan; there below the village of Dēra the hills on either side close in again upon the river. Thence all the way down past Mīr Alī-khēl and Moghul-kōṭ the irrigable ground by the river is restricted to small detached patches here and there. This explains why a position close to the above indicated open stretch of the Zhōb river's *thalweg*, at the village of Apozai, was selected for the present Agency headquarters known as Fort Sandeman, and also why the remains of prehistoric settlements to be described below are all situated in the neighbourhood of the latter.

Dr. Noetling's account of mounds.—The merit of having first called attention to these sites and correctly determined their character as far as the relics collected would permit, belongs to Dr. F. Noetling, late of the Indian Geological Survey. He visited the Zhōb District in 1898 in the course of geological labours and in a letter addressed from Fort Sandeman to the President of the Anthropological Society of Berlin has described the observations

[1] See *Gazetteer*, Zhōb District, pp. 18, 142.

and finds made by him at one of those sites with much care and notable accuracy.[1] The mound to which Dr. Noetling's account refers and which locally is known by the name of *Pēriāno-ghuṇḍai*, the 'Witches' Mound',[2] proved on my preliminary examination the more interesting of the two within convenient reach of Fort Sandeman, and to it our work was devoted from January 31st to February 9th. Considerations of time and available labour necessarily confined it to a careful survey of the surface and trial excavations at different points. From 60 to 70 men were all the labour that could locally be collected at a season which bitterly cold winds and occasional rain made distinctly trying for the men.

Mound of Pēriāno-ghuṇḍai.—The *Pēriāno-ghuṇḍai* mound (Fig. 5) is situated about 4 miles in an almost due westerly direction from the centre of the Fort Sandeman cantonment. It rises, as the sketch plan (Pl. 2) shows, in the angle formed between the right bank of the Zhōb river and one of the wide flood-beds, known as *Saliāza*, in which the sudden floods of the Kapīp stream at the time of rain in the mountains make their way to the river. The area covered by the mound on the line of greatest length from NE. to SW. extends over some 500 yards, with a width of about 350 yards. The top rises to circ. 70 feet above the fairly level ground towards the river. The foot of the mound is on the south cut away steeply by the Saliāza flood-bed; this passes here quite closely and probably has carried away some of the ground once covered with debris. The same has probably been the case also, though to smaller extent, to the north where a small branch from the same flood-bed skirts the end of the mound. That the once occupied area had extended considerably further to the east is shown by the pottery debris to be found there lying in patches on the surface where this has not been cut up and covered with shingle by ever shifting smaller flood channels of the Saliāza. The same may have been the case also towards the river where much of the ground has been laid out into fields for intermittent cultivation.

Debris layers of mound.—Numerous small ravines cut by rain water fissure the slopes of the mound on all sides, but more closely where its falls off steeply on the west and south. The inspection of the sides of these ravines as well as a rapid examination of the surface suffice to show that the whole of this great mound is composed of accumulations of clay and rough stones from decayed dwellings and permeated by layers containing ashes, bones and decomposed refuse, as quite correctly described by Dr. Noetling. The whole of the top and slopes is covered with fragments of pottery, both plain and painted. There can be no doubt that here as at previously noticed mounds of ancient date the abundance of this pottery debris on the surface is directly due

[1] Cf. *Verhandlungen der Berliner Anthropologischen Gesellschaft*, pp. 460-470, with a number of instructive drawings reproduced in the text.

[2] Dr. Noetling records the name *Kaudeni* (sic) both for this mound and a second one situated about 3½ miles to the SSW. and to be described below. Repeated enquiry showed that the designation *Kaudanī* is applied only to the latter site; it lies outside the Mandokhēl tribal tract comprising Apozai.

That the name of Pēriāno-ghuṇḍai is one firmly rooted in local tradition was proved by the difficulty experienced at first about securing Apozai labourers for digging there. Superstitious fear of the 'witches' keeps all local people away from the mound.

colour or slip (*see* P.82-97, Pl. VI). On these pieces, far smaller in number, the execution is distinctly coarser which may possibly be due to a technical reason. The absence of the dark terracotta ground may, perhaps, explain why we find here also various shades of brown used for the pattern besides the more common black, as seen in P.66, 82-85, 97, Pl. VI. Thence results a certain resemblance in colour effect to the painted pottery found at the Drāband-Tānk mounds and some sites in Baluchistān to be mentioned below. This resemblance deserves to be kept in view when considering the question as to the development of the decorative style to be found in this later pottery.

Incised or relief-decorated pottery.—In comparison with the mass of painted pieces the number of those decorated with patterns incised or in relief is significantly small at this site (for specimens see Pl. VI). Among the former we find rows of spirals, P.67, 74; circlets produced with or without a centre bit, 68, 77; bands of various curved lines, 69, 75. Patterns in relief comprise boldly raised garland-like bands, 77; ridged 'ribbing,' 70; bands of zigzags, 71; and a peculiar net-like decoration, 76, 78, 80, of which the method of production is not clear to me. Of perforated fragments, like 89, there is a number,[1] while the only handle found by us is the painted one, 81. Quite by itself stands the fragment, P.263, Pl. VIII, resembling in quality a hard burnt brick and bearing in front the sunk representation of what looks like a stylized honeysuckle.

Start of trial excavations.—I cannot attempt here to indicate the various shapes of vessels as far as they may be recognizable from the broken pieces collected. Nor is there much need for this labour, as fortunately the trial excavations conducted at several points of the mound have yielded a sufficient number of complete jars, pots and cups to illustrate the prevailing types of forms. Regard for the available time and the limited labour induced me to start these excavations on the southern side of the mound and on a level about 20 feet below the top where the steepness of the slope promised to facilitate progress (Fig. 5). At one point erosion had exposed here the corner of rough stone masonry by the side of a small ravine. This proved to be the top of a foundation wall about 4 feet thick, extending for a length of close on 24 feet, and the level indicated by it was used by us as a kind of bench mark. Work was started by cutting into the slope behind this foundation wall (marked *C* in the sketch plan, Pl. 2) and to the west of it for a length of about 18 feet, while close on the east a trench, E, was run into the mound at right angles. In recording the result of the clearing effected I shall take each section of the slope examined in the order from east to west.

Pots with human bones in trench P. E.—The trench E was carried into the mound for a distance of about 15 feet. All through it disclosed layers of clay from decayed mud-brick walls, mixed with ashes and fragments of plain or painted pottery. Near the southern end of the trench the remains of a wall of large-size sun-dried bricks were struck. The bottom lay circ. 4 ft. below the wall foundation in C. Behind it and on about the same level

[[1] For an explanation of such perforated pottery, see now my detailed report on *An Archæological Tour in Gedrosia*, Chap. IV, Sec. iii.]

there were found close together two pots containing small fragments of human bones mixed with ashes (Fig. 8). The larger, about 14" across where widest and 11" high, showed rough 'ribbing' on the outside surface; the other was of plain ware. A third pot of coarse make, P. E. 28, with similar contents was found partly broken amidst refuse of animal bones and pottery debris when a cutting was made eastward along the line of the wall just mentioned. In the course of this clearing there was disclosed lower an area about 6 feet square a wall fragment built with bricks of similar hardness and size but on the level of C. Amidst the debris adjoining behind this wall there were found pieces of a painted pot which also had contained human bones and ashes. These finds made it clear that burial of human remains after burning was practised by the occupants of the site when their dwellings stood approximately on the level indicated and that the customary position chosen for such deposits was probably intermural.

Small finds in trench P. E.—Within the trench there were found on levels varying from —4 to +4 feet five small jars of pear-shape, two nearly complete, all painted and ending in a typically small base. Their shape, as seen from P.E.1 (Pl. VII), closely resembles that of specimens found at prehistoric sites of Sīstān.[1] Of other ceramic remains may be mentioned the small flat patera-shaped cup, P.E.2, (Pl VII) and the oil lamp, P.E.3, both of coarse make; pieces of a painted pot with the 'cobra' pattern; the fragment P.E.4 of a small figurine showing the head and breast of a bull. Among minor finds there are of interest the stone 'blade', P.E.5 (Pl. IX), showing signs of prolonged use on its two edges, and small copper fragments, including a thin ring. Together with similar relics found elsewhere, too, more or less on the same level, they justify the culture represented at Periano-ghundai being described as chalcolithic. Numerous fragments of clay and bone bangles and the piece of an alabaster cup, P.E.18 (Pl. IX), may also be mentioned as well as a series of tiny perforated bone (or shell ?) discs which evidently had been used like beads.

Finds in area P. C.—The area C was cleared from the wall foundation previously mentioned for a length of 24 feet and to a width of about 13 feet. Here a number of interesting objects were recovered. On a level but little above the wall foundation there turned up the well modelled terracotta figurine of a big-horned humped bull, P.C.1 (Pl. VIII), measuring a little over 8" from muzzle to tail. Of another similar figurine only one leg survived. On practically the same level there turned up the stone 'blade', P.C.21 (Pl. IX), and the bronze arrow, P.C.22 (Pl. IX). About 4 feet higher lay the broken base of a flat-bottomed alabaster jar, P.C.18 (Pl. VII), resembling the pieces of similar small alabaster vessels found by me at prehistoric sites of Sīstān. On a level of 5-6 feet above that of the wall foundation there were found scattered over an area 2 feet square a dozen of small jars between 2½" and 3½" in height, of which Pl. VII shows the specimens P.C.2-3, 7, 10. Their

[1] See *Innermost Asia*, iii, Pl. CXIV, Md. R. R. II. 027, SS. 0121.

shapes vary, but the typical small foot is common to all. Most of them are complete, and with a few exceptions they are painted. Of special interest is the decoration of P.C.2, 4 which show pairs of eagle-like birds in flight. Almost all these jars show signs of having suffered from a conflagration. Of this there was clear evidence also in the holes filled with carbonized matter, probably from burnt beams, which were seen in what seemed to be remains of mud-brick walls. Near this collection of jars was found also the small painted saucer, P.C.13, and the lid, P.C.14. Fragments of bone and clay bangles and of alabaster cups turned up here also as well as pieces of flint which may have been used by man. What the fragment of a small terracotta figure P.C.17 represents is not clear. There still remain to be mentioned some flakes of what seems to be asbestos found near the bottom of the clearing, and a Moghul silver coin, an issue of Shāh Jahān, 1059 A.H., which was found when clearing the debris close to the surface at the back of the cutting.

Objects found in cutting P. W.—At a distance of about 10 feet from the western end of the wall foundation in C and on slightly higher level the slope was cleared over an area of about 18 feet square to a maximum depth of about 9 feet. Here in P.W. rough stone foundations about 4 feet thick were traced, enclosing a room about 6 feet square. Large uncut stone flags formed its paving. Among the objects found here which included several pieces of pottery, plain or painted, there may be specially mentioned the double-edged stone blade, P.W.1 (Pl. IX); the large stone blade P.W.7 (Pl. IX) which evidently was used as a knife; the copper rod P.W.2; torsos of coarse terracotta figurines, P.W.6, 7, (Pl. VII) representing a horse and a monkey (?), respectively, and the fragment of a polished bone bangle (?), P.W. 8. Special interest attaches to the small relief figurine P.W.9 (Pl. IX), made of fine clay and showing a hooded human head with a high and exaggeratedly large nose and female breasts. Closely resembling reliefs were found on the surface of Pēriāno-ghuṇḍai (P.262, Pl. IX) and also at the mounds of Kaudanī and elsewhere (*see* Pl. IX). The close agreement of all these in archaic treatment and the beak-like nose suggests that the representation of some tutelary deity may be intended. The fragment of another small terracotta relief, P.W.5 (Pl. IX), finely worked, belongs to a draped human figure, but is too much broken for determination. The stone beads and one of blue glass were found too near the surface to afford archæological evidence, and so also a small bead of black stone, P.W.25, apparently inlaid with spots of white paste. A piece of ore imperfectly smelted on its side may perhaps contain iron.

Clearing of room P.SW.—At a distance of about 30 yards to the WSW. of the cutting P. W. excavation was started on February 4th at a level about 10 feet lower. The clearing which was gradually carried for some 35 feet upwards into the slope was from the start attended by instructive results. Lower down there were traced under a layer of debris about 5 feet high the stone foundations of walls enclosing a room, *P.SW.*, measuring about 16 by 9 feet. Along the shorter side to the north the mud brick wall about 4 feet thick still stood to a height of circ. 5 feet above the foundation. Near the

SW. corner of the room there was found embedded below what seems to have been the earth flooring a coarsely made pot (P.SW.1, Pl. VIII) about 9" across where widest and as much in height. It was filled with earth containing ashes and small fragments of human bones. In the midst of this were found two small jars, P.SW.2, 3, similarly filled and of the same pear-like shape, with small foot-stem, as those found in *E* and *C*. As seen in P.SW.3 (Pl. VII) the decoration consists of black lines round the mouth and the widest part. Subsequently five more small jars, more or less intact and all painted with simple geometrical designs (*see* P.SW.4, Pl. VII), were recovered from the same level, besides a number of broken ones. Amongst other remains of painted pottery recovered from the debris of P.SW., with patterns in black over dark red, there may be specially mentioned the two broken feet, P.SW.16, 17 (Pl. VII, VIII) which once carried open patera-like bowls. The piece detached from the mouth of a large vessel, P.SW.20 (Pl. VII) is of interest as it shows a very primitive form of handle joining the rim to the shoulder.

Pots with human bones in room P.SW.a.—On continuing excavation beyond the mud-brick wall (*i*) above mentioned a room, *P.SW. a*, measuring 14 by 9 feet was cleared. Here there was found at about 5 feet below the extant top of this wall a large broken dish, about 18" in diameter, turned downwards and covering a solid mass of ashes and burned human bones. The dish, of which fragments are marked P.SW.a. 29, is painted on the inside below the rim with a broad wave line over a red band. Of the large pot (P.SW. a. 30) containing another burial deposit and found on about the same level only broken pieces survived. In the case of a third burial (*see* Fig. 7), one large pot had been tilted downwards over the mouth of another containing at the bottom a thick layer of ashes and bones. This second pot, P.SW. a. 33, was painted with a bold geometrical pattern. Within it lay the miniature dish, P.SW.a.6, also holding ashes.

Objects recovered from P.SW.a.—The space occupied on its top by the room *P.SW. a.* was finally excavated to a depth of about 15 feet from the top of the wall (*i*, and 25 feet below the surface of the slope above. In the course of this there were found besides numerous fragments of superior painted pottery the bone needle, P.SW.a. 3 ; pieces of two large dishes decorated with painted scrolls below the inner rim, P.SW.a.31-2, and the fragment, P.SW.a.4, of an alabaster jar. A very curious find is the saucer-like fragment in clay, P.SW.a. 5 (Pl. VII), which has a broad flat base and above it a round hole, a little over an inch in diameter and about $\frac{3}{4}''$ deep. Its shape has suggested to me that it might possibly have served as a kind of tray to carry little pear-shaped jars such as were found in numbers at the site (*see* Pl. VII). The very small circular base which is typical of these jars, would not allow them, when filled, to stand securely unless this base were firmly fixed into a corresponding cavity or stuck into the ground. A trial shows that among the dozen or more of these little jars recovered the base of almost of every one fits exactly the round hole of the saucer-like piece described. The

purpose of the latter might thus have been exactly the same as that served by the elongated metal saucers which are used by modern Chinese to carry and handle the little porcelain tea cups customary among them.

It deserves to be noted that when the excavation at *P.SW.a.* had proceeded to a depth of 13 feet from the top of wall *i* the stone foundation of a wall running diagonally across the area was laid bare. It rested on a layer of debris containing ashes and painted potsherds. This conclusively showed that remains of rough dwellings may be looked for also in the lower strata of the mound.

Clearing of rooms P. SW. b, c.—Rooms enclosed with walls of mud bricks could be traced on both sides of P.*SW.a.* and were filled with similar layers. In P.*SW.b.* adjoining to the north-east there were recovered the painted jars P.SW.b. 1,2, 4 (Pl. VII) besides a number of pieces from broken ones. The space marked P.*SW.c.* on the opposite side yielded a number of miscellaneous finds from different levels. The painted jars P.SW.c. 1-3, 8 (Pl. VIII) with numerous other pieces of similar ware were found within layers from 2 to about 5 feet below the top of wall *i*. From the same layers were recovered also the painted figurine of a bull, P.SW.c. 17; the stone knife blades or scrapers P.SW.c. 20, 22, 29 (Pl. IX) and the bone needle and puncher, P.SW.c. 21, 23. The carefully worked stone arrowhead, P.SW.c. 26 (Pl. IX) is of distinctly neolithic shape and closely resembles some of those recovered from sites in the Sīstān desert.[1] The well finished stone chisel P.SW.c. 18 and the pieces of black glass bangles, P.SW.c. 25, 28, were found close to the surface of the slope and may all the more easily have been carried there from above as the western edge of *c* lies close to a drainage channel. This explanation certainly applies to the small fragment of glazed pottery P.SW.c. 17 which can only be of mediaeval or later origin.

Beyond the drainage channel above mentioned, from a point about 45 feet to the SW. of *c* the slope was cleared approximately to the level of *i* over an area of 18 by 25 feet. Apart from pieces of painted jars, among them one of unusual shape (P.SW.d.2, Pl. VII), there were found here at a depth of 3 feet fragments of a black glass bangle (P.SW.d.13) and of an alabaster jar; some copper implement and a piece of that fine grey ware, decorated in black, to which reference has been made above and which is rare here but known to me from Sīstān [and Makrān] sites.

Trenches P.NE. and P.SE. opened.—In order to test the uppermost layers of the mound I had two trenches cut across its flat top down to a depth of about 6 feet. The one marked P.NE. on the plan disclosed walls built with sun-dried bricks, 14″×9″×2″ in size, and meeting at right angles. A jug, P.NE.1 (Pl. VII), and fragments of other vessels found here show painted decoration of the usual type. A large pot with painted design, P.NE.2 (Pl. VIII), which was unearthed within the walls, contained what seemed some decomposed food stuff. A larger one, found broken, had been put over its mouth.

[1] See *Innermost Asia*, ii, Pl. CXII., R. R. 033, IX. 06, XV. 026.

The only other finds here were pieces of a copper buckle and a jade bead. The trench marked P.SE laid bare the stone foundation of a wall, 2½ feet wide, over a length of 22 feet. Apart from a few fragments of decorated ware the only articles unearthed were fragments of a black glass bangle and some copper objects, and a bead which appears to be celadon.

Conclusions from finds and observations.—I have thought it desirable to record the results of our excavation at Pēriāno-ghuṇḍai in some detail. This may justify more reliance being placed on the conclusions which, I believe, can be drawn from the finds and observations yielded by the examination of a comparatively very small section of the ground. This examination has furnished strong support for the belief that the remains embedded in this great mound were deposited by dwellers occupying the site during a prolonged but homogeneous culture period. The ceramic wares which by their decoration supply the most characteristic criterion of this culture, are throughout associated with stone implements of a neolithic type and also, to a smaller extent, with the use of copper both for weapons and ornament. We have seen that walls of sun-dried bricks placed on rough stone foundations served for the habitations of the living. The remains of the dead after burning were gathered in earthen vessels and a resting place for them provided within the walls of the dwellings or in closest proximity to them.

Links with prehistoric sites in West and East.—It is impossible at present to express any opinion as to the race or origin of the people who occupied the site while its debris layers accumulated, or to determine, even approximately when their occupation ceased. But the resemblance of the motifs used in the painted pottery to that from culture strata ascribed to pre-Sumerian times at Mesopotamian sites and hence approximately datable is very striking indeed.[1] Even closer perhaps are the links between the painted pottery of Pēriāno-ghuṇḍai and that which covers wind-eroded prehistoric sites in the south of Sīstān. But it is not possible at present to indicate definite chronological limits either for this pottery or for the abundant painted ceramic remains which Dr. Andersson has brought to light in the Chinese province of Honan and which by their motifs also distinctly recall our pottery from Pēriāno-ghuṇḍai and other Balūchistān sites.[2]

SECTION ii.—THE MOUNDS OF KAUDANĪ AND MOGHUL-GHUNḌAI.

Site of Kaudanī.—About 5 miles to the south-west of Fort Sandeman and close on 3 miles due south of Pēriāno-ghuṇḍai there is another ancient site known as Kaudanī. I was able to pay two short visits to it during my stay at Fort Sandeman. As the sketch plan in Pl. 3 shows, it occupies a

[1] Regarding these Mesopotamian affinities I can at present refer only to the brief but instructive synopsis furnished by Dr. Arne in his paper *Painted Stone Age Pottery from the Province of Honan* (Geological Survey of China, Peking, 1925), pp. 23 sqq.

[2] Dr. Arne on p. 20 of the paper just quoted specially emphasizes the fact that the earthenware fragments reproduced by Dr. Noetling from Zhōb "all remind one to a surprising extent of the Honan pottery, perhaps, more so than any pottery........with the exception of the sherds from Abu Shahrain (Mesopotamia)."

position close to the right bank of the Zhōb and on either side of a flood-bed which descends from the northern flank of the Tōr-ghar hill range. The site comprises a mound distinguished by the name of *Rōgha-Kaudanī* (the 'intact Kaudanī') which rises in the angle formed by the river and the right bank of the flood-bed, and a low debris-covered plateau called *Māta-Kaudanī*, (the 'broken Kaudanī') some 300 yards away to the south of the former.

Ceramic remains on surface.—The mound shows a height of about 30 feet and measures some 220 yards from north to south with a width somewhat less. Its slopes have been worn down by prolonged erosion and are cut into by numerous small ravines just like those of Pēriāno-ghundai. Both the slopes and the small plateau on the top were found to be thickly covered with potsherds, many of them painted. But as an examination of the specimens collected shows, both the material and the execution of the patterns are throughout distinctly inferior to that observed in the vast majority of the decorated ware from Pēriāno-ghundai. As the specimens reproduced in Pl. X show, the geometrical motifs painted in black generally resemble those found on the latter. But they are painted with far less care, and the fine dark terracotta slip of the ground is absent. On the other hand roughly painted patterns in light reds and browns (*see* K.3, 6, 11, Pl. X), such as found at some of the Tānk mounds, are frequent. There is a resemblance to the earthenware from the latter also in the increased number of pieces showing incised and relief decoration (K.7-9, Pl. X).

Miscellaneous finds from trial trench.—That nevertheless the remains of Rōgha-Kaudanī are not likely to belong to a period very far removed from that of the Pēriāno-ghundai deposits is indicated by miscellaneous small objects picked up on the surface or found in the trial trench which was opened about halfway up the southern slope. Among these may be mentioned the small terracotta figurine K.14 (Pl. XII) showing a grotesque female bust in relief, exactly similar to one excavated at Pēriāno-ghundai and discussed above; the bronze bangle K.15 (Pl. XII); the inlaid bead of paste K.16 (Pl. IX); and the bronze button K.18. The only stone object found at this site which may be an artifact is a small scraper-like flint, K.19, besides half of a small spherical stone ball. From the trench above mentioned there came the small neatly worked bronze jar K.C.2 (Pl. XII) originally standing on three feet and perhaps intended to hold antimony or some other cosmetic; and besides potsherds of the type already described, the fragment of an earthenware bowl decorated inside with an elaborate stamped pattern, K.C.1 (Pl. X). Special mention may be made of the small potsherd, K.21 (Pl. X), showing what may possibly be some characters produced by a seal or stamp impression. Comparison of them with the seals found at Mohenjo-daro and Harappa is not at present practicable for me.

Remains of Māta-Kaudanī.—The small plateau of Māta-Kaudanī rises at its highest point about 18 feet above the wide flood-bed of the river which passes its foot on the west and north. But the vertical face here exposed shows relics of human occupation in the shape of potsherds, bones, etc., only

for some 3 or 4 feet from the top. The area over which pottery debris extends on the surface measures about 220 yards from WNW. to ESE. with a maximum width of about 80 yards, and is cut up by deeply eroded channels. The fragments of painted pottery are mostly of the same coarse type as found on the mound to the north. But I picked up one small piece of superior make, K.M.1, which shows painted decoration of the Periāno-ghuṇḍai type. Another small fragment, K.M.2, is of interest as it is glazed and ornamented with a polychrome pattern including a Sasanian pearl border. The site lies in the immediate vicinity of irrigated ground, and these two isolated relics may be due to occasional visits both in prehistoric and mediaeval times. Taking the evidence as a whole there seems to me little doubt that the period when the Kaudanī site was occupied and its mound formed is later than that of Pēriāno-ghuṇḍai.

Site of Moghul-ghuṇḍai.—Already on my first round of reconnaissance visits paid from Fort Sandeman the site known as *Moghul-ghuṇḍai* had specially attracted my attention. It is marked by a small mound (Fig. 6) situated near the left bank of the Zhōb, a little over 9 miles to the south-west of Fort Sandeman and about a mile due south of the village of Tōr-khula. The mound is duly marked on the quarter-inch map Sheet No. 39 E. Though not of large size, it forms a conspicuous object in the riverine flat. It measures about 90 yards from north to south and about 75 yards across where widest. Its top, covered with the remains of rough stone walls of obviously modern origin, rises to a height of 22 feet above the partially cultivated ground close by. A small spring issues at the mouth of a stony ravine, some 300 yards away to the west (see the sketch plan, Pl. 4), and this made it possible on February 11th to place our camp close to the spot under the protection of an adequate escort provided from the Zhōb Levy Corps headquarters.

Marks of prehistoric occupation.—As the name *Moghul-ghuṇḍai* shows, local tradition ascribes the mound, like almost all old remains of northern Balūchistān, vaguely to the times of the 'Moghuls.' But my first inspection had shown that the broken pottery plentifully to be picked up on the top of the mound and among the large stones from decayed walls which cover the slopes, was of the same prehistoric type as found at Pēriāno-ghuṇḍai and the desert sites of Sīstān. Additional interest was imparted to the site by the very numerous stone heaps which I noticed strewing the bare foot of the hill-site above. That they marked a cemetery of some kind seemed highly probable, even though the Tōr-khula people cultivating the ground near by in an intermittent fashion knew nothing of their character. Before I describe the interesting results attending the examination of these small cairns it will be convenient to give an account of the trial excavation carried out at the mound. The labour available for this work was very limited; apart from a small gang of sturdy Hazāras made available by the Military Works only some twentyfive, rather inefficient, diggers could be raised from Tōr-khula. Most of its semi-nomadic Kibzai dwellers were away with their flocks in the

mountains, and the employment of men from other tribal sub-sections was objected to.

Trenches cut through mound.—Two broad trenches were dug on the north and east sides of the mound from its foot towards the rough stone wall of late date which encircles the top. From there the trenches were subsequently extended with a gradually increasing width towards the centre and, where they met, carried down to a depth of about 8 feet. No large stones, uncut, such as encumber the top and slopes on the surface, were met with in these cuttings. This showed that this debris of rough walls belonged wholly to 'Sangars' erected in late times when the mound was used for defence. That such use was purely temporary could clearly be deduced from the fact of no decorated pottery except that of the prehistoric type being found either on the surface or in the trenches. Irregular courses of undressed stones which might have served as foundations for mud-brick walls of small dwellings were struck on different levels both in the north and east cuttings. But regular stone-built walls were found only on or close to the level top of the mound. Such a wall of rough stone slabs set in mud with fairly regular courses was exposed about 2 feet below the top. It was over 4 feet thick and still stood to a height of about 5 feet, suggesting a circumvallation. But no corresponding wall section could be traced in the north trench. To the remains of walls of a similar character struck by the trenches cut across the top I shall refer presently.

Painted pottery.—Right through the layers excavated in the trenches up to the top there was found abundance of painted pottery pieces, all showing geometrical designs of the same type as at Pēriāno-ghuṇdai and in most cases a body of superior make. In the great majority of the potsherds the patterns are painted in black over a dark terracotta ground colour. But even in the rare pieces where the design in black is applied direct to the light pink clay or over a yellowish or light brown wash, as in MM.N.5, 11, 18, 21, 29, 33-35, 50 (Pl. XI), the execution is far more careful than in the painted pottery of this kind from Kaudanī or Pēriāno-ghuṇdai. In view of the close agreement which the geometrical patterns show with the great mass of the painted pottery from Pēriāno-ghuṇdai, I need not attempt here a separate analysis of the prevailing motifs. Instead of this task which may be left to competent experts, it will suffice to refer here to Pl. XI where a selection of typical designs has been reproduced. But I may single out here for special mention the interesting fragment, MM.N.26, which shows a clematis-like flower executed in red and brown against a black ground, and the similar use of black in MM.N.25.[1]

Distribution of pottery.—Close affinity to Pēriāno-ghuṇdai will, I believe, be noted also as regards the forms of the vessels when closer examination will permit them to be reconstructed. The proportion of unpainted pieces

[1] I may note here in passing that the single piece which shows a grey body, MM.E.b.7, with a pattern in brown, also belongs to a flat bowl decorated on the inside, just like the corresponding pieces of a similar ware from Pēriāno-ghuṇdai referred to above, p. 35.

showing incised or relief decoration is small just as at Pēriāno-ghuṇḍai, and the motifs used, as reference to MM.E.1, MM.N.46, 48-9 (Pl. XI) will show, exactly the same. It deserves to be noted that a comparison of the painted earthenware pieces found right down to the bottom level of the mound with those found on or near the top shows no appreciable difference in decorative style. But both in the north and east trenches the number of painted pieces was far greater in the layers from 3 to 6 feet below the top than further down or quite close to the surface.

Miscellaneous small finds.—There can be no doubt that the remains embedded in the debris layers of the Moghul-ghuṇḍai mound belong to one culture and that it was the same which has left its relics at Pēriāno-ghuṇḍai. Small copper fragments were found also at Moghul-ghuṇḍai, and though curiously enough not a single worked stone was collected, the designation 'chalcolithic' may safely be applied to this culture here also. A few small pieces of glass found in the course of clearing near the surface look modern. Another object of manifestly later provenance is the curious little iron implement, resembling a small spit, MM.E.44 (Pl. XII), which was found on level ground at the end of the east trench. An exact *pendant* of it turned up in one of the cairns of the cemetery on the hill-side above, and the deposits under these cairns, as we shall see further on, can be definitely shown to belong to the early centuries of our era. Other small finds made in the course of excavation, such as the terracotta figurines of a membrum virile and a grotesque animal head, MM.N.124-5, and of miniature bulls, MM.E.57-59 (Pl. X), correspond, however, to objects from Pēriāno-ghuṇḍai. In the small terracotta relief MM.E.61 (Pl. XII) we have a very close replica of the two figurines showing the bust of a hooded woman from Pēriāno-ghuṇḍai and Rōgha-Kaudanī, discussed above.[1] Nor were bangles of clay and beads in celadon, stone and inlaid paste (?) wanting.

Cinerary vessel with human bones.—The burial customs of those who occupied the Moghul-ghuṇḍai mound were in the main the same as practised at Pēriāno-ghuṇḍai. This was strikingly demonstrated by a discovery made in the north trench at a depth of about 4 feet from the top level. Here there was found close to what seems to have been the stone foundation of a mud-brick wall a large earthenware vessel complete but broken, MM.N.i. Its diameter, where widest, was about 22," that of the flat bottom 6." The mouth had been crushed in. The sides were decorated, as the piece MM.N.i.3 reproduced in Pl. XI shows, with three black wave bands between two border lines, all over a fine terracotta ground. The inside was full of human bone fragments, largely calcined, including fingers, small pieces of the skull, etc., as well as ashes. Apart from a few potsherds belonging to one or two small vessels which may have been broken before deposit, two little jars were found within, one badly cracked, the other, MM.N.i.1 (Pl. X) intact. The latter retains what seem to be remains of some foodstuff. Both are painted

[1] See above p. 38.

with a simple linear design in black and correspond in shape exactly to similar jars found at Periano-ghundai.

Other burial remains.—Burial remains of another kind came to light when the east trench was carried across the level top of the mound and a wall of uncut but well-laid stone work, about 2 feet wide, struck running across it. Within the trench was found at a depth of about 3 feet, a small human skull, broken like the bones near it. On following up the wall to the south it was found to lead to a small room of irregular shape enclosed by walls of the same construction standing to a height of about 3 feet. In the SW. corner of this the skull and part of the skeleton of a child were unearthed on a level of about 2 feet from the surface. No pottery was found near it. The only other objects recovered in this room were a few beads of bone, glass and a celadon-like frit besides some pieces of painted pottery. In view of the latter it seems scarcely possible to ascribe these child burials to a period very much later than that of the cinerary deposit, MM.N.i.

Stratification of deposits.—It now remains for me to note briefly the curious stratification in the mound as disclosed by the cuttings made. It shows a succession of alternating strata of earth mixed with ashes and potsherds and of clay full of small pebbles. All the layers show a distinct downward slant. These layers may, perhaps, best be explained by intervals when the small settlement occupying the mound was destroyed or temporarily abandoned and the walls of its dwellings crumbled away. The mud-bricks with which they were built were like all the ground at the foot of the hill side full of pebbles, and as such walls quickly decay the rain would wash down their clay and pebbles and spread them in steadily thickening layers over the ashes and other refuse which had accumulated while the mound was occupied.

Burial deposits within cairns.—Reference has been made above to the numerous low cairns which already on my first visit to Moghul-ghundai I had noticed strewing the stony slopes at the foot of the hill side above the mound. They could be traced scattered in irregular groups from the spring for about 300 yards to the north (*see* *A* in sketch plan, Pl. 4). Subsequent search showed that another extensive series, *B*, of such cairns stretches up the slopes and crest of small spur to the north-west, to a height of about 200 feet above the riverine plain. The examination of the first few among these low stone heaps was distinctly puzzling in its result.

Nothing apparently could be found below the stones, and digging into the ground beneath to a depth of 4-5 feet disclosed only hard undisturbed soil. But on searching the cairn iii (marked 3 in the sketch-plan) we came in the centre of the small circular patch of soft earth, about 1 foot deep, which the loose blocks of stone enclosed, upon fragments of a broken pot of coarse earthenware and small pieces of human bones; among them was the fragment of a jaw-bone retaining some teeth. That the cairn marked a burial deposit was thus clear. Closer search brought to light quite a little collection of iron objects, hidden under a large stone block of the enclosure. It included five

leaf-shaped arrowheads, four others with smaller points; one triangular barbed arrowhead closely resembling some found by me at the Niya Site and in the Lop Desert,[1] and what seems to have been a knife or dagger (see Pl. XII). Like most of the iron objects subsequently found, all these have suffered badly from corrosion.

Pottery deposited with bone fragments.—Very soon the search of the cairn v revealed similar deposits in an exactly corresponding position: a coarse earthenware pot, like an Indian 'katora,' broken; the small flat pot of the same ware with its narrow mouth on the slant, M. v. i (Pl. X); the tip of an iron arrowhead, all mixed up with small fragments of human bones and a few coarse potsherds. With the guidance thus afforded it became easy to search the other numerous stone enclosures. Within practically all of them there were found a few small bone fragments together with some potsherds. As regards the latter it may be specially noted that they showed invariably the same inferior brittle fabric, of light pink colour inside and whitish on the surface, as the vessels already mentioned. On the other hand it is a fact of distinct interest that in all the sixty odd cairns examined not a single painted piece of pottery nor a plain one of the fine prehistoric ware was found. The few earthenware vessels found which, though broken, still showed their distinctive shapes, are seen in Fig. 11. From the regular association of bone fragments with potsherds it seems safe to conclude that those whose burial customs account for these cairns burned their dead and subsequently deposited a few of the bones on the ground within a rough stone enclosure along with some earthenware vessels which may have had served at the last rites or with broken pieces of the same. But pious practice would permit occasional deposits of another kind also, and from these it is possible to determine the period from which these funeral relics date with a fair degree of assurance.

Finds of metal objects.—Remains of iron arrowheads, mostly badly corroded or broken, were found also in the cairns x, xi, xii, xxiii, xxv, xxvii, xlii, together with much decayed fragments of small iron implements of uncertain use in x, xi, xxvi and an iron spear head in xi. In xxii was found a stick-like stone with a perforated end which seems to have served as a hone, and in xxxii there survived the piece of a wooden comb with teeth on both sides. The well-worked silver bangle found in vi, with tapering ends so arranged as to permit of extension when needed (Pl. XII), had in view of its small size evidently belonged to a child. The graceful little bronze jar, standing on three feet (Pl. XII), which comes from vii. a, is likely to have served for holding antimony or some other cosmetic, and hence probably was the property of a woman. Three bronze 'cat-bells,' a small jade bead and one of carnelian inlaid with white paste were brought by a villager as having been picked up on the hill side; they are also likely to have been obtained from cairns.

Relief-decorated pot.—But more useful from the archæological point of view is the small earthenware pot from xxx (Pl. X) not unlike that found in v. Judging from its very small mouth it may have been intended to hold

[1] See *Serindia*, iv., Pl. XXIX, N. XIV. 008; *Innermost Asia*, iii., Pl. XXIII, Kum. 01; C. xcvi. 016.

some ointment or similar liquid. It is decorated in relief with three narrow bands of which the top one, imperfectly preserved, shows eight bunches of grapes or other fruit concentrically arranged. The band below this represents a scroll of unmistakably classical design formed of palmettes turned downwards and of small rosettes in the loops above. The third band at the bottom shows two intertwining festoons and in the medallions formed by them alternately an oval shape filled with what may be taken for grapes or fruits, and a figure which looks like the bust of a person upholding the festoon with both arms. The whole band in its rough execution distinctly suggests to me derivation from the frieze with garland-carrying *putti* which is so frequent in Gandhāra relievos and which we find reproduced also in the frescoed dado of a Buddhist shrine at Mīrān in Chinese Turkestān.[1] However this may be, it is impossible not to realize the Hellenistic inspiration of the whole decorative design applied to this product of modest ceramic art.

Engraved bronze ring.—Welcome support of this chronological indication was furnished by a find which rewarded the rapid search made of some dozen cairns in the previously mentioned group, *B*, on the spur to the north-west. In most of them the deposit consisted merely of a few small pieces of bone and bits of coarse earthenware. In NW. xvii however there were found three bronze rings. Two of them are mere thin hoops but the third, solidly made, has a bezel of pointed oval shape, Pl. XII, about 1" long and ½" across showing two engraved figures. The one standing on the right (in the intaglio) is that of a male with a high head-dress or helmet, carrying a spear behind the left shoulder and a bow in the left hand. Before him stands a smaller figure which judging from the wide hips and the skirt marked outside the lower part of the body is obviously that of a woman. The right arm is raised to the head while the bent left rests on the waist; the right leg is bent under as if in a dancing pose. The whole suggests Indian workmanship of the Kushān or Gupta period; but not having at present access to materials for reference I can indicate this attribution only with reserve.

Absence of painted pottery from cairns.—Anyhow it seems safe to assert that the deposits of these curious cairns cannot be older than the early centuries of our era, and that they indicate burial customs wholly different from those observed at the mounds of Pēriāno-ghuṇḍai and Moghul-ghuṇḍai. The total absence among those deposits of painted pottery of any sort is a fact deserving special note. Together with corresponding negative observations made by me at Tōr-ḍhērai[2] and other Buddhist sites I had occasion to examine of the N. W. Frontier it furnishes a useful antiquarian indicium, and so does also the inferior quality of the white-surfaced pottery associated with those deposits.

Cairns near mound.—Here I may conveniently record that when we came to examine some out of eight small stone enclosures of similar appearance which had attracted my attention on slightly rising ground some 50 yards

[1] Cf. *Serindia*, i., pp. 509 sqq.; iii., Pl. XLI.
[2] See below p. 69.

south-west of the foot of the Moghul-ghuṇḍai mound, the result was exactly the same. We found there some fragments of human bones together with potsherds of the same coarse whitish ware embedded in the loose earth which had been heaped up within the cairns. Significantly enough the only piece of painted pottery that came to light lay on the undisturbed gravelly soil below where it obviously had been carried from the far more ancient mound.

The experience gained at this site has suggested to me that the numerous little stone heaps of irregular shape which I had noticed before on bare slightly raised ground about a quarter of a mile to the north of Periāno-ghuṇḍai and also further away to the east of it, might well have a similar origin. I must therefore regret that after the conclusion of our work to the south of Fort Sandeman no time could be spared for a systematic examination of them.

SECTION iii.—MINOR SITES IN MIDDLE ZHŌB AREA

Spur of Uruske-zhāra.—About 1½ miles to the south of Moghul-ghuṇḍai there rises steeply above the right bank of the Zhōb the end of a low but steep rocky spur, known from a collection of graziers' temporary huts as *Uruske-zhāra.* A channel of old date feeding a couple of mills passes along its foot and irrigates the ground to the north of the new village fort of Shērak-kila. The extremity of this spur, rising to a height of about 100 feet above the plain, bears on its top the remains of much decayed dwellings. Their walls are roughly built with stones quarried on the spot and extend over an area of some 150 by 50 yards. Painted potsherds are to be found in plenty both among the ruined walls and on the slopes below. They closely resemble in type the painted ware found at Kaudanī. As the specimens reproduced in Pl. IV show, they comprise pieces which from patterns, colouring and body can safely be assigned to the chalcolithic culture (U. Zh. 2, 8), besides plenty of others which by their rough execution of the designs and coarser body suggest a later period. As the position is a strong one by nature, especially in view of the assured access to water, prolonged occupation of the site from early times onwards is probable.

Mounds of Sandiyār.—Some mounds which had been reported to the south of Badīnzai village and not far from the road leading towards Kila Saifullah, proved on inspection of distinctly later date. The largest of them was reached after a ride of some 12 miles from our Moghul-ghuṇḍai camp and is known as *Tōr-sharghalai* ('the Black Mound'). It rises within a bend of the Speziār-viāla, a canal which carries water across the wide but poorly cultivated plain of Sandiyār on the right bank of the Zhōb. The mound measures about 90 yards in diameter and has a height of about 12 feet. What painted potsherds I could find were all coarse in design and fabric, resembling the pieces of later type from Kaudanī and Uruske-zhāra. Two still smaller mounds, also called *Tōr-sharghalai,* lie further north in the same plain and about a

mile to the SW. of Badīnzai village. What little of painted pottery could be seen here was of the same type as already referred to or looked still later. The close proximity to the Zhōb of all these sites, whether prehistoric or later, is a point which deserves to be specially noted.

Sang hill near Akhtar-Khān-kila and ancient pipe line.—Another reported old site which I visited was near the hamlet of Akhtar-Khān-kila, situated at a distance of about 9 miles to the north-west of Fort Sandeman. It lies close to the point where the Zhōb river enters that narrow winding portion of the valley which continues almost unbroken to the junction with the Gumal. A little above the hamlet there rises close to the river's left bank a completely isolated conical hill known as *Sang* to a height of about [illegible]80 feet. Towards the river it drops with very precipitous cliffs and elsewhere too it presents steep rocky slopes. That the strong position thus formed had been utilized for defence in times gone by is proved by the potsherds to be found on the north slope, where ascent is less difficult than elsewhere, and right up to the narrow serrated crest. I found no painted pieces among them, but the neatly ornamented handle of a large vessel (Sang. 1, Pl. IV) which was picked up at the NW. foot of the hill, is certainly old. Finds of stone beads and other small ornaments were said to be frequent after rain on a little plateau there. Close to this I was shown the spot where the digging of a channel to carry Kārēz water, made some years before the troubles of 1919 and since abandoned, had disclosed the existence of an ancient pipe line. A portion of this was laid bare by digging down to a depth of about 4 feet. The pipe I was thus able to examine showed a diameter of a little over 6 inches with walls of very hard clay about ½″ in thickness. There can be no doubt about the antiquity of this relic of a civilization far higher than any which the Zhōb valley is likely to have seen for centuries past.

Old site near Kābulzai.—Various practical considerations made it advisable that before proceeding to visit certain reported old mounds in the Hindubāgh Tahsīl, the westernmost tract of Zhōb, I should survey the numerous localities in the Lōralai Agency where remains of antiquarian interest could be looked for. I accordingly started on February 22nd for the cantonment of Lōralai, the headquarters of the Agency. Travelling by car on the excellent military road, another true Limes, which connects it with Fort Sandeman I could cover the distance of 114 miles in a day. Before leaving the Zhōb drainage area arrangements made ahead allowed me on the way to visit an old site reported near the hamlets of Kābulzai. I reached it after a ride of some six miles to the east of the military post of Lakaband. It proved to consist of the remains of quarters built with rubble and mud occupying the top of a low ridge close to the Ziārat of Sanzar Nika, the supposed saintly ancestor of the Kibzai Kākar clan. The rough stone walls enclosing an area of some 70 by 40 yards were known to be of recent date. Among the potsherds strewing the ground within it the comparatively few painted pieces found were of a type resembling the later pottery of Kaudanī. Here, too, a position of some natural strength may have invited temporary occupation at different periods.

After crossing the narrow but picturesque range beyond Lakaband which forms the watershed between the Zhōb and Anambār rivers, the whole way lay through wide open plateaus drained by affluents of the latter. Signs of increased cultivation met the eye here at intervals and prepared me for the small but pleasant oasis which since the occupation of this tract in 1886 has sprung up around Lōralai cantonment.

CHAPTER III.—RUINED SITES OF LŌRALAI DISTRICT

SECTION i.—REMAINS IN THE BŌRI TRACT

Cultivated areas near Lōralai.—A three days' halt at Lōralai, where Colonel C. T. Daukes, C.I.E., Political Agent of the District, very hospitably received me, enabled me with his kind help not only to gather much useful local information facilitating my work but also to visit a number of old sites which the use of the motor car on good roads leading to the east and north-east brought within convenient reach. Near Lōralai a number of valleys descending from the hill chains on the north and south debouch into broad alluvial fans. The hills themselves, rising nowhere much above 7,000 feet and for the most part considerably lower, look very arid and bare. But the considerable extent of the areas drained by those valleys makes it possible for a good deal of water to be tapped by means of Kārēzes at the foot of those alluvial fans and to be used for the cultivation of wide stretches of fertile land along the wide but usually dry beds of the Kohār-mānda and Lōralai rivers. In consequence a series of villages, larger and more prosperous looking than any to be found in Zhōb, are to be found for a distance of about 20 miles near the left bank of the Kohār-mānda where it passes first north and then east of the Lōralai cantonment. A smaller belt of arable land also irrigated from Kārēzes stretches by the side of the Lōralai river for about 10 miles to the south-east.

Alluvial deposit over old wall.—These natural advantages for cultivation account for the vestiges of early occupation to be found above the ground in the Bōrī Tahsīl. That others are likely to be hidden here under layers of alluvial soil was brought home to me when on February 24th I proceeded to survey the remains reported near the highroad leading eastwards before it turns off in the direction of Fort Sandeman. Before reaching the conspicuous mound of Rāna-ghuṇḍai, south of the Dirgī-Kudezai village and close to the eighth mile stone from Lōralai, I was shown about 400 yards to the south of it a spot where cultivators having hit upon stones and then digging for treasure had laid bare a solid layer of large uncut slabs at a depth of about 8 feet from the surface. It seemed like a massive foundation wall, and in the earth above it I found potsherds of thick coarse ware without decoration. Above this a layer, 4 feet thick, of clear clay represented alluvial deposit. As iron fragments were said to have been found in the course of the 'trea-

steep rocky ridge was reached which forms the eastern outlier of the Kāsa massif. The narrow crest of this ridge bears the small stone-built enclosure known as *Lakarai-kala* and occupying a position very difficult of access at a height of some 300 feet above the Lōralai-rūd (Fig. 21). The fair preservation of the rough but solid walls points to a comparatively recent date and so does also the total absence of painted pottery. After scrambling down the steep rock ledges with which the ridge drops towards the open but here very barren valley of the river we visited the ruined circumvallation of Sad-khēl-kala. It proved to have been occupied until some 70 years ago by the predatory clan of the Sad-khēl, who were ousted by inroads of the Baluch tribe of the Marris. The far advanced decay of the mud and rubble-built enclosure showed how rapid is the effect of rain and wind erosion in this arid region.

Mounds near Wahār.—Riding down the valley and across the dry bed of the river we reached again cultivated ground between the scattered hamlets of Kachhi and Wahār. Close to the right bank of the Sehān stream coming from the north and irrigating the fields of Wahār, rises a small mound called *Zara-ghundai*. It is about 50 yards in diameter, with a height of about 10 feet, and undoubtedly marks a village site. Of what little old pottery could be seen on the surface none was painted. On the left bank of the river about half a mile to the north I was shown a low long-stretched hillock, apparently natural, but covered in places with potsherds. The few painted pieces among them showed patterns coarsely executed in brown and black over yellow ground and were all of a late type. Riding to the south-east for about a mile and a half past the hamlet of Kuchnai-Wahār (the 'Little Wahār'), I was taken to a larger mound known as *Firōz-Khān-ghundai* having a diameter of about 60-70 yards and a height of some 16 feet. The potsherds found on its slopes included a good deal of coarsely made painted ware, none of the pieces showing patterns of early type.

Funeral cairns near Chaperkai hill.—Finally passing for about 3 miles to the NE., first over Kārēz-irrigated ground and then across numerous dry flood channels of the Mara-rūd, we reached a bare rocky plateau at the south-west foot of the rugged Chaperkai hill. The report received at Lōralai of ruins on its top proved based on some misapprehension. But as we rode across the plateau scattered heaps of large slabs manifestly laid by human hands attracted attention (Fig. 4). They are locally known as 'Moghulai' and at once recalled the funeral cairns found above Moghul-ghundai and described above. Close examination of three of these stone-heaps showed that the little heaps of loose earth which were found within over the bare rock of the ground, contained small emains of human bones and fragments of the same coarse and brittle whitish earthenware as found within the cairns of Moghul-ghundai. Thus the identity of the funeral customs practised at both widely separated localities was fully established, and probably also that of the period and race to which these deposits belong. On the same ground close by there were to be seen quarry-like hollows, 6-8 feet deep. Their purpose could not be fully investigated before

the approach of dark necessitated our return to the road whence a drive of some 25 miles took us back to Lōralai.

SECTION ii.—THE MOUND OF DABAR-KŌT

Preliminary visit to the Dabar-kōt Sharghalai.—Among the old sites reported within reach of Lōralai there remained only the fortified hill top of Bāla Spina, conventionally known as 'Monastery Hill', about 2½ miles south of the cantonment. The remains of two small ruined forts of uncertain date which crown its ridges had already been visited and fully described by me in 1904.[1] So I was able on February 26th to turn south to the Tahsil of Dukī comprising the open valley tracts of Thal and Chotiali where several old mounds were known to exist. To the largest of them, situated about 9 miles in a direct line to the S. of the Dukī Tahsil, I had already in December, 1904, had a chance of paying a hurried visit.[2] The impression then retained of its interest and importance was considerably strengthened by the instructive account (not known to me at the time) which Dr. Noetling had recorded of prehistoric relics he had found there.[3] So after a preliminary inspection paid on February 27th in the company of Khān Sāhib Shīrīn Khān, the energetic and very helpful Extra Assistant Commissioner of the Sub-Division of Dukī and Sanjāwī, I decided upon trial excavations at this mound. On the following day I established my camp at the mill and abandoned post of Dabar-kōt, about 2 miles to the NNW. of it. It is from this locality that the great mound locally known simply as *Sharghalai*, a common term in these parts for any old 'mound', may conveniently be designated.

The plain of Thal.—Before I describe the mound and the results of the investigations carried on there a few brief remarks regarding the Thal plain will be useful. This wide and potentially fertile alluvial tract forms the lowest portion of the valley which descends from the hills of Sanjāwī and after passing in the shape of a narrow winding defile through the hill range stretching south of Lōralai expands into two small basins above and around Dukī. The bed of the river which has formed the valley is dry for the most part except at times of rain floods. But the springs which subterraneous drainage causes to rise in it at different points supply water. This together with the supply of other springs issuing at the foot of the above mentioned hill range is carefully caught in small canals or else tapped by means of Kārēzes both about Dukī and again at the head of the Thal plain. This plain attains its maximum width of close on 16 miles a little below the latitude of the Dabar-kōt mound

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[1] See *Report of Archæological Survey*, etc., 1904-5, pp. 52 sqq. My account has been reproduced in the Lōralai volume of the *Baluchistan District Gazetteer*, ii. pp. 45 sq.

[2] See *ibid*, pp. 53 sq.

[3] Cf. *loc. cit.*, 1899, pp. 102 sqq., Figs. 4-12.

(D.17-8, 19, 22-24, 27, 30) is great. As in most of these the fabric is coarser and the execution of the pattern inferior, their attribution to a later period of ceramic craftsmanship seems justified.

Two other observations appear to bear out this surmise of an occupation continued into times somewhat later than at the chalcolithic sites of Zhōb. One is that whatever pieces of relief decorated earthenware were found, whether on the surface (D.20, 50)[1] or in excavated ground (see D.E.i.1, ii, 11, 12, Pl. XV), all show a very coarse fabric and careless modelling; the other is that potsherds with incised or stamped patterns were practically absent. No stone implements, apart from broken pieces from hand-mills, were found by us on the surface of the mound. But this negative fact can scarcely claim much weight since Dr. Noetling obtained from the site several flint scrapers and also a well finished flint arrowhead of neolithic type.[2]

Cinerary pots found.—Our trial excavations were started by cuttings into the western and northern slopes of the mound at the points marked *a-e* on the sketch plan, Pl. 5, at levels of about 22, 28, 20, 19 and 18 feet, respectively, below the top. The photograph in (Fig. 15) shows the section covered by the cuttings *c-e* in the course of clearing. No remains of interest were found at *a* and the diggers transferred elsewhere after the work had been carried into the slope for a couple of yards. Better results attended it at *b* where under 2 feet of earth from the surface a broken pot with another smaller one inside filled with ashes and small bone fragments came to light. Both pots were painted over a red ground with black geometrical designs composed of different hachurings, as seen in the specimens D.N.b.2, 3, Pl. XV. Their body was very brittle and the painted patterns easily effaced. A few feet off on about the same level a painted dish of similar make and type of decoration lay tilted over a heap of small bones. Further in under 6 feet of debris three more earthenware vessels containing ashes with bone fragments were unearthed close together. They all were of inferior clay and hence found broken. The largest, measuring about 16″ across where widest, was painted below the mouth with a diagonally arranged check pattern of diamonds filled with hachures.

A smaller one to the right held a little jar, painted with diagonal hatchings D.N.b.5 (Pl. XV). On the left a dish decorated in a similar fashion covered ashes in the midst of which lay the painted base, D.N.b.6, of a large cup or bowl. Subsequently two more large pots, unpainted, were found near by on approximately the same level. They held ashes and were surrounded by small fragments of burned bones. The poor ware of all these cinerary vessels curiously contrasted with the hard clay of some large fragments of painted pottery like D.N.b.11-2, unearthed in the same layer. The decorated handle, D.N.b.13 (Pl. XV) from a large vessel may be noted.

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[1] The elongated ornament which appears on both these fragments is seen also in the relief decoration of a piece from the Ḍabar-kōṭ mound reproduced by Dr. Noetling, *loc. cit.*, 1899, p. 106, Fig. 8. The suggestion there made of a representation of the Kauri shell being intended is very plausible.

[2] See *loc. cit.* 1899, p. 104, Figs. 3-5.

Finds in cutting C.—In the area *c*, too, a large cinerary pot, D.N.c.1, turned up at an approximately corresponding depth. It is of some interest to note that while its painted decoration in black and red over a light yellow ground is of a coarse later type, the small cup, D.N.c.2 (Pl. XV), found inside, with black festoons over dark terracotta, resembles the painted ware from Pēriano-ghundai in its decoration, though not in shape. The painted pottery fragments, D.N.c.7-8 (Pl. X[illegible]) with their bold leaf and scroll pattern show the free style noted above in pieces found on the surface. The ornament to which the two pieces of gold filigree work, D.N.c.24-5, belonged cannot be determined. Small copper fragments were found here low down as in *b*. Very curious is the fragment of glazed stoneware, D.N.c.28. Like the carved glass bead, D.N.c.27, it may well have slid down from a layer close to the surface. Thin earthenware pateras like D.N.c.34 (Pl. XV) were found also in *d* and *e*. The most interesting find made in *c* was a large roughly quadrangular shaft, about 6-7 feet across; it was cleared to a depth of some 20 feet without reaching the bottom. It was cut through the clay and other accumulations without any lining. Except for a thin layer of ashes, met at about 2 feet from the opening, it was filled entirely with soft earth down to about 17 feet where a thick layer of whitish matter suggesting decomposed grain was struck. It hence appeared probable that this shaft may at one time have served for a grain store, though the absence of any lining makes it doubtful whether this could have been the original purpose. The analogy of the shaft discovered at the site of the 'Jade Gate' of the ancient Chinese Limes beyond Tun-huang made me think of its possibly having been intended for a dungeon as it was there.[1]

Discovery of brick-lined drain.—Particularly useful results attended the clearing of the area marked *d* for a length of about 30 yards and a width of some 12 yards. Here soon after work had been started a line of large hard-burnt bricks was struck at a point where a shallow ravine had reduced the thickness of the overlying debris. When this line was followed up through layers of earth rising up to 8 feet or more, it proved to belong to an open drain stretching at a gentle slant from east to west. The bricks were laid in one flat course along the bottom, slanting courses of single bricks being placed on either side, as seen in (Fig. 17). The size of the bricks is 21″×16″×3″. The width of the drain is 2′ 9″ at the top and 2′ at the bottom. After extending in this fashion for 31 feet eastwards the drain is continued for another 21 feet with burnt bricks of the same kind at the bottom and outer side while the inner side is formed by three receding courses of hard sun-dried bricks in excellent preservation. These bricks measure 21″ ×10″×3″. Beyond the eastern extremity of this drain a kind of flooring or foundation of the same hard bricks was traced on a slightly higher level for some 25 feet. The earth layer above it was very hard and probably belonged to a wall of stamped clay or

[1] Cf. *Serindia*, ii. pp. 685 sq.

and finished large bead, D.E.i.54, of paste-like material, found 3 feet below the surface.

Decorated pottery from D. E. i.—In view of the indication thus afforded two observations concerning the decorated pottery remains from D.E.i. deserve special notice. One is that what painted potsherds were found here in the ground all show patterns of the later type, as noticed at Kaudanī, Rāna-ghundai, etc., with geometrical patterns coarsely executed in red, brown or black, for the most part without a ground colour. The other fact is the frequency of relief or stamped decoration, as illustrated by the specimens, D.E.i.1-4 in Pl. XIV, XV. In the case of stamped ornament simple floral motifs prevail; in relief the spiral is favoured. Of special interest are the two fragments with relief reproduced in Pl. XIV which include animal figures. D.E.i.34 under a painted band of black over dark brown shows medallions each holding the figure of a running deer with rows of rosettes above and below. In D.E.i 7, a small fragment, we have, I believe, represented above a row of running deer and below separated by a raised line what appears like a succession of upraised horse's heads. The motif of the first piece has certainly a Sasanian look about it.

Finds at D. E. ii.—The impression here gained of later occupation is strongly supported by what the clearing of the area D. E. ii, on the eastern slope of the mound outside the ravine *f-f*, showed. There, at a level of about 25 feet above the plain, excavation brought to light pieces of coarse but hard earthenware from large vessels with bold relief decoration, corresponding, as the specimens D.E.ii.11-2 in Pl. XV show, exactly to that found on similar ware from D.E.i. A large earthenware basin found among animal bones, portions of a stone hand mill and of a crucible as above described, marked the position of a homestead built with walls of clay and rubble. Copper and iron fragments were associated here also. But the most significant find made here was that of a thin silver coin which, though much corroded and not yet sufficiently cleaned, can be safely recognized as belonging to a Sasanian issue. It was found under several feet of earth but above the floor level of the homestead referred to. Whether the few fragments found here of coarsely painted or stamp-decorated pottery, such as D.E.ii.6 and the dark grey piece D.E.ii.9 (Pl. XV), can be ascribed to so late a period is doubtful. But it is certainly noteworthy that neither at D. E.i nor at D. E.ii did we find the smallest fragment of the characteristic chalcolithic ware.

Terracotta figurines from trench N.vi.—There still remain to be recorded brief notes concerning the trial trenches I had opened through a few of the low knolls rising above the gentle slopes at the northern and western foot of the mound. In the one marked N.vi on the sketch plan no structural remains were traceable. But there were found two fragmentary terracotta figurines in relief which may claim some interest. The one, D.N.vi.1 (Pl. XVI), $5\frac{1}{2}''$ high in its broken condition, apparently up to the breasts, represents a female with narrow waist and with the right proper arm raised. The figure is nude, except for two bulges just above the feet which may be meant

for rings or possibly as on Indian sculptures for a conventional indication of drapery. The whole had a thin plaster coating on which traces of red paint remain. The other figurine, D.N.vi.2 (Pl. XVI), badly broken, stands to a height of 3″ and shows apparently a draped kneeling figure with the hands folded below the waist as if carrying some gift. The head is lost. Both reliefs show some skill in modelling. More archaic is the small head, D.N.vi.3 (Pl. XVI) $2\frac{1}{4}$″ high, worked in stone, which, as the flat surface below the neck shows, was meant to stand by itself. The disproportionately large eyes seem to be oblique; the ears are very perfunctorily marked. The small grotesque head D.N.vi.5 (Pl. XVI) is of very primitive execution. The representation of two or three figures in relief on the small clay plaque D.N.vi.4 (Pl. XVI) is also so primitive that it is difficult to hazard any interpretation. These little sculptures were found in widely different places and are likely to belong also to different periods. Of similarly divergent type are the few painted potsherds found here, only two showing 'chalcolithic' patterns and the rest later treatment in colour and design. Fragments of clay bangles and a stone bead were the only other finds here.

Burial ground at foot of mound.—The two trenches, D.W.i,ii, which towards the close of our work at the mound were cut on its low swelling slope to the west, brought to light from a depth of 2 to 4 feet plenty of potsherds of the 'chalcolithic' type, such as the specimens reproduced in Pl. XIV, as well as some stone beads, bronze fragments and the grotesque little head, D.W.i.1 (Pl. XVI). Obviously the prehistoric occupation of the site had extended to this portion of the ground also. But it soon became evident that at a much later period it had served as a burial ground; for remains of skeletons were found above the layers containing 'chalcolithic' potsherds, and further examination of the neighbouring ground soon showed small cemeteries with shallow graves also elsewhere. The skeletons in them had been disturbed and some practically exposed by erosion. The laying out of the bodies from north to south could, however, be clearly seen in a number of cases, and this proves the burials to belong to Muhammadan times. Thus the presence among the small objects collected here of a few small pieces of iron and of some late pottery fragments is easily accounted for. An extensive Muhammadan burial ground lies quite close to the south-eastern foot of the mound and proves that this use of the ancient site by the villages near by continues to the present day.

Later occupation of the mound.—In conclusion it will be convenient briefly to sum up the main facts which may be deduced from the evidence recorded above. From the uniformity with which potsherds of the 'chalcolithic' type, together with other small relics of the same period, are found from the top of the mound right down to the flat ground at its foot it is safe to conclude that the accumulation of 'culture strata' which raised the mound to its present height was the result of continuous and very prolonged occupation during the chalcolithic period, as already rightly assumed by Dr. Noetling. But our trial excavations have shown that the great mound thus created was

chosen as a site for habitations, probably intermittently, also in later times after iron had come into use and down to the early centuries of our era. Only a thorough excavation of the whole mound down to its deepest strata could reveal such evidence as those deposits may contain of change or progressive development in the chalcolithic civilization. Nor is it possible without extensive operations, bound to claim very heavy expenditure in time and money, to indicate all the successive settlements for which the mound may have provided a convenient site since the chalcolithic period closed.

Inscribed earthenware fragment.—Such operations might, perhaps, permit us to co-ordinate the early deposits of the Dabar-kōt mound more closely with those brought to light at Mohenjo-daro and other important sites, especially if they were to furnish other written remains beyond the inscribed fragment of an earthenware cover which Dr. Noetling had been fortunate enough to find, apparently on the surface.[1] The few characters on it which Dr. Noetling's drawing reproduces seem to bear a distinct resemblance to the as yet undeciphered signs represented on so many of the seals from Mohenjo-daro and Harappa. But a comparison of them with the latter does not come within my competence or the scope of these notes.

SECTION iii.—THE BUDDHIST REMAINS OF TŌR-ḌHĒRAI.

Hillock of Tōr-ḍhērai.—The great Sharghalai mound described in the preceding section was not the only site to which my explorations extended during the sixteen days while my camp stood at Ḍabar-kōṭ. Already on my first visit to this ground my attention had been attracted to a small rocky hillock known as *Tōr-ḍhērai*, the 'Black Knoll,' which rises about 2 miles to the north of Ḍabar-kōṭ above the left bank of the Thal river. It marks the southernmost end of an offshoot of the low but very rugged hillchain called Torān-ghar. This stretches across from the Anambār valley in the east towards the curiously shaped mass of hills known as Ḍabar and divides the Thal plain from the Dukī basin. The Tōr-ḍhērai hillock, seen in the photograph (Fig. 22), faces the foot of the easternmost extremity of the Ḍabar hills. It rises with its top to a height of about 77 feet above the canals which carry water past Ḍabar-kōṭ to the principal villages of Thal. Bare masses of rock, almost black in colour and apparently of volcanic origin, cover its slopes to the west and south and account for its name.

Rock graffiti and carved tufa slabs.—On one of these rocks facing towards the river bed I had been shown large scrawling graffiti which though undecipherable suggested some early Nāgarī characters. Another piece of rock a little further to the west proved to be covered with coarsely scratched figures meant to represent horsemen and Svastikas. No structural remains were known to Jān Muhammad, a local Levy Havildār from Yāru-shahr, who guided me to these 'written stones.' But the manifestly pre-Islamic graffiti and the

[1] Cf. *loc. cit.*, 1899, p. 106, with Figs. 10, 10.a.

fact of an old Muhammadan graveyard extending between the eastern foot of the hillock and the track to [illegible]bar-kōt which passes close by, induced me to examine the top of the hillock more closely. Its very position at the head of the canals from which [illegible] of the Thal villages receive their irrigation curiously recalled the site of [illegible]*bāsh*.[1] A close search of the surface soon revealed [illegible] stone lying here and there exposed on the top [illegible] showed roughly carved floral ornaments of [illegible] Graeco-Buddhist [illegible] it became at once evident that the site [illegible] sanctuary, presumably Buddhist. In the light of [illegible] is justified that it was continuity of local [illegible] presence of the old Muhammadan graves at [illegible].

Discovery of masonry base.—By March [illegible]th the progress in our work at the Dabar-kōt mound allowed me to move a party of our diggers to Tōr-dhērai and to start excavation in search of structural remains. On clearing the top of the hillock I soon was able to trace what proved to be the line of a massive base of stone masonry facing north (Pl. 7). The excavation carried along it and subsequently continued on the debris-covered eastern slope brought to light two sides of a rectangular base faced with large, carefully dressed slabs of stone and still intact to a height from about 4 to 10 feet. The length of the north side, as far as its masonry could be traced, is 47 feet, as shown in Pl. 6, and that of the east side 54 feet as far as a short wall projecting near the SE. corner. Beyond that a continuation of this side of the base could be followed for about 20 feet in the shape of a coarsely built wall of rubble. This as well as the short projecting wall of undressed stone were manifestly later additions. Neither on the south nor on the west was it possible to trace the line of this base clearly. Westwards this is fully explained by the fact that the top of the hillock on this side drops with a very steep rock face immediately beyond the area once occupied, as we shall see, by the Stūpa proper. On the south the wall of the base may have been destroyed by the quarrying to which I shall presently refer.

Architectural decoration of base.—On the north and east sides the facing wall of the base up to a total height of 3′ 4″ showed a succession of mouldings, gradually diminishing in height upwards, as seen in the section of Pl. 7. The wall portion rising above them was decorated with slightly projecting pilasters, which, however, were nowhere preserved for more than about 3 feet in height. The capitals had been destroyed in all cases. Hence the total height of the base could not be determined. The material used for the pilasters as well as for the carved mouldings below was tufa; this still retained in places the hard white stucco with which it had been coated. Details of the pilasters, as far as preserved, are shown by the elevation in Pl. 7. The disposition of the pilasters, 15″ wide at their base, was somewhat irregular, the intervals between them varying from 3′ 3″ to 3′ 10″, as seen in the

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[1] See above p. 20.